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ABSTRACT

Proceedings of the 1983 annual meeting of the Council of Graduate Schools (CGS) in the United States are presented. Included are reports of concurrent sessions, papers, and information on the Council's business meeting. Topics of concurrent sessions include: the federal legislative process, graduate school databases, the scholar-computer connection, accreditation of professional master's degree programs, CGS/Graduate Record Examination Board agenda for minority graduate education, centralized research facilities and administration, CGS plans for the future, and liberal studies master's degree programs for teachers and business. Papers and authors are as follows: "The Global Mission of American Higher Education" (Robert E. Marshak); "The Virtues of Necessity: New Connections for the Humanities" (O. B. Hardison); "The Outlook for Continued Federal Support of Graduate Education" (Paul Simon); and "Report of the Council of Graduate Schools: Graduate Record Examinations Board 1983-1984 Survey of Graduate Enrollment" (Bernard V. Khoury). Also included are six resolutions of CGS, a list of 1983 officers and committees, a list of regional associations of graduate schools affiliated with CGS, a list of member institutions, and the constitution and bylaws. (SW)

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Proceedings of the Twenty-Third Annual Meeting

COUNCIL OF GRADUATE SCHOOLS
IN THE UNITED STATES

THEME

GRADUATE EDUCATION—NEW CONNECTIONS

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November 30–December 2, 1983
STOUFFER'S RIVERFRONT TOWERS
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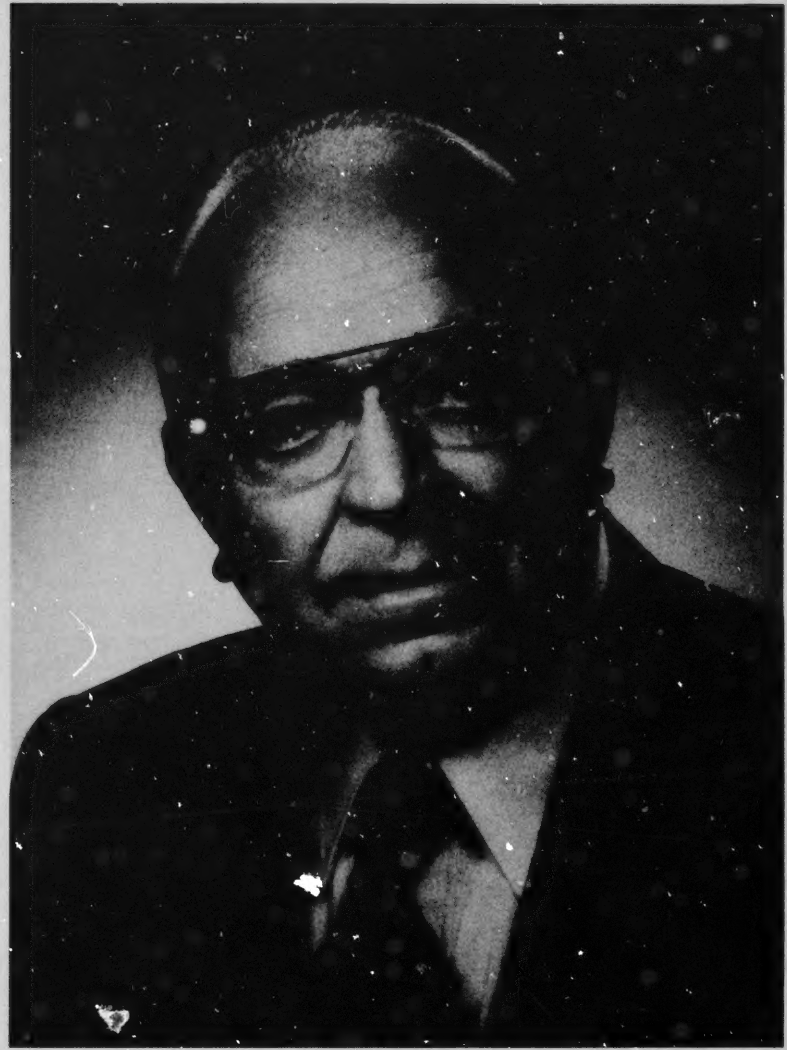
In Session Prior to Start of Annual Meeting



Michael J. Pelczar, Jr.
President, Council of Graduate Schools in the U. S.

"For our benefit he has given his all—and in the truly loving way that is characteristic of leadership by example in which he verily has excelled."

Donald J. White, Boston College, when introducing at the business meeting a resolution honoring Michael J. Pelczar, Jr.

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THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

23RD ANNUAL MEETING

PROGRAM

WEDNESDAY, NOVEMBER 30, 1983

9:00 a.m.

Welcome
Rev. Thomas R. Fitzgerald, President, St. Louis University

Presiding
Rev. William V. Stauder, Dean of the Graduate School, St. Louis University

9:10 a.m.
Keynote Address: Robert E. Marshak, University Distinguished Professor, Virginia Polytechnic Institute and State University

The Global Mission of American Higher Education

Presiding
Wimberly C. Royster, Vice Chancellor and Graduate Dean, University of Kentucky

10:45 a.m. **Concurrent Sessions**

1. **The Federal Legislative Process**

William D. Blakey, Counsel, Committee on Education and Labor, Subcommittee on Postsecondary Education, U.S. House of Representatives
John Vaughn, Executive Vice President, Association of American Universities

Presiding
Thomas J. Linney, Director of Governmental and Association Relations, Council of Graduate Schools in the U.S.

2. **The University-Urban Community Connection**

X. J. Musacchia, Dean, Graduate School, University of Louisville
Frank Gamelin, President, Higher Education Center of St. Louis
James Laue, Director, Center of Metropolitan Studies, University of Missouri-St. Louis

Presiding

Don H. Blount, Graduate Dean and Vice Provost for Research, University of Missouri-Columbia

3. **Graduate Education and Elementary and Secondary School Teacher Preparation: Graduate Schools Program for Advancing the Quality of Teachers**

Ann Flowers, Dean, School of Education, Georgia Southern College, and President, American Association for College Teachers of Education
Robert Watson, Head, Award Administration and Liaison Section, National Science Foundation

Presiding

Mary Ann Carroll, Dean, Graduate School, Indiana State University

4. **Graduate Education and the Foreign Student: A Critique of Recommendations for the Improvement of Graduate Education of Students from Developing Countries**

Sven Groennings, Director, Fund for the Improvement of Postsecondary Education
Robert P. Morgan, Department of Technology and Human Affairs, Washington University

Presiding

Volker Weiss, Vice President for Research and Graduate Affairs, Syracuse University

12:00 Noon
Luncheon

Presentation of Awards

Gustave O. Arlt Award in the Humanities

Presented by

James Ballowe, Associate Provost and Dean of Graduate School, Bradley University

CGS/University Microfilms International Distinguished Dissertation Award
Presented by

Daniel J. Zaffarano, Vice President for Research and Graduate Dean, Iowa State University

Presiding

Vaughnie J.Lindsay, Dean, Graduate Studies and Research, Southern Illinois University at Edwardsville

2:00 p.m.
Plenary Session I

Washington University-Industry Connections

David M. Kipnis, Chairman, Department of Internal Medicine, Washington University School of Medicine
Monsanto Company-Sponsored Biochemical Studies

Joseph M. Davies, Chairman, Microbiology and Immunology Department, Washington University School of Medicine
Mallinckrodt and Monsanto-Sponsored Hybridoma Program

William D. Phillips, Chairman, Chemistry Department, Washington University
Graduate Program in Biotechnology and Other Industry-Sponsored Activities

Edward L. MacCordy, Associate Vice Chancellor for Research, Washington University
Reality of Contractual Arrangements and Practices for University-Industry Programs

Presiding
Luther S. Williams, Vice President for Academic Affairs and Dean of the System Graduate School, University of Colorado

3:45 p.m. **Concurrent Sessions**

5. **Graduate School Data Bases**

Jean E. Girves, Assistant Dean, Graduate School, The Ohio State University
Frank Goldberg, Assistant Dean, Graduate School, Northwestern University

Presiding
George W. Kunze, Dean, Graduate College, Texas A&M University

6. **The Scholar-Computer Connection**

Daniel Updegrove, Director, Planning and Modeling Activities, EDUCOM

Presiding
Christopher Oberg, Associate Dean, Claremont Graduate School

7. **Accreditation of Professional Master's Degree Programs**

Richard Ungrodt, Vice President for Academic Resources and Institutional Development, Milwaukee School of Engineering
William Laidlaw, Vice President, American Assembly of Collegiate Schools of Business
Frances Horvath, Dean, School of Allied Health Professions, St. Louis University

Presiding

Paul A. Albrecht, Executive Vice President, Claremont University Center, and Executive Dean, Claremont Graduate School

8. CGS/GREB Agenda for Minority Graduate Education

Donald Deskins, Associate Dean, University of Michigan
Jules B. LaPidus, Graduate Dean, The Ohio State University
Martha Romero, Project Director, Western Interstate Commission on Higher Education
Luther Williams, Vice President for Academic Affairs and Dean of the System Graduate School, University of Colorado

Presiding

Anne S. Pruitt, Associate Dean, Graduate School, The Ohio State University

THURSDAY, DECEMBER 1, 1983

9:00 a.m.

Plenary Session II

Edward A. Knapp, Director, National Science Foundation

A Vital Bond: Graduate Education and Technology

Presiding

Robert E. Gordon, Vice President for Advanced Studies, University of Notre Dame

10:45 a.m.

Business Meeting

President's Report
Michael J. Pelczar, Jr., President, Council of Graduate Schools in the U.S.

Chairman's Report
Wimberly C. Royster, Vice Chancellor and Graduate Dean, University of Kentucky

Business

Report on CGS Planning Activity
Paul A. Albrecht, Executive Vice President, Claremont University Center, and Executive Dean, Claremont Graduate School

Resolutions

Installation of 1984 Board Chairman

Presiding
Wimberly C. Royster, Vice Chancellor and Graduate Dean, University of Kentucky

12:00 Noon
Luncheon

Speaker
William H. Danforth, Chancellor, Washington University

Graduate Education in the 1980s

Presiding
Edward N. Wilson, Dean, Graduate School of Arts and Sciences, Washington University

2:00 p.m.
Plenary Session III

Nancy M. Gordon, Assistant Director, Human Resources and Community Development, Congressional Budget Office

The U.S. Economic Outlook: Connections between the Economy, the Federal Budget and Human Resources

Presiding
Donald J. White, Dean, Graduate School of Arts and Sciences, Boston College

3:45 p.m. **Concurrent Sessions**

9. **Recommendations of the National Commission on Student Financial Aid**

Thomas J. Linney, Director of Government and Association Relations, Council of Graduate Schools
Robert G. Snyder, Senior Research Associate, National Commission on Student Financial Assistance

Presiding
Clarence Ver Steeg, Dean, Graduate School, Northwestern University

10. **Centralized Research Facilities and Administration**

Thomas Lyttle, Manager, Research Instrument Service, Chemistry Department, Iowa State University
William T. Oosterhuis, Program Director, Instrumentation for Materials Research, National Science Foundation

Presiding
Daniel J. Zaffarano, Vice President for Research and Graduate Dean, Iowa State University

11. **CGS Plans for the Future: Discussion of CGS Planning Report**

Paul A. Albrecht, Executive Vice President, Claremont University Center, and Executive Dean, Claremont Graduate School
Jules B. LaPidus, Dean of Graduate School, The Ohio State University
Michael J. Pelczar, Jr., President, Council of Graduate Schools in the U.S.

Presiding
Wimberly C. Royster, Vice Chancellor and Graduate Dean, University of Kentucky

12. **Liberal Studies Master's Degree Programs for Teachers and Business**

Robert Williams, Dean, University College, Washington University
Barbara MacEachern, Director, Graduate Liberal Studies Program, Wesleyan University

Presiding
William H. Maehl, Jr., Vice Provost, Continuing Education, University of Oklahoma

5:30–6:30 p.m.
Social Hour

FRIDAY, DECEMBER 2, 1983

9:00 a.m.
Plenary Session IV

Congressman Paul Simon, Chairman, House Postsecondary Education Subcommittee

The Outlook for Continued Federal Support of Graduate Education

Presiding
Jule P. LaPidus, Dean of Graduate School, The Ohio State University

10:45 a.m.
Plenary Session V

O. B. Hardison, Director, Folger Shakespeare Library, Washington, D.C.

The Virtues of Necessity: New Connections for the Humanities

Presiding
Thomas E. Jordan, Associate Vice Chancellor and Dean of Graduate School, University of Missouri-St. Louis

12:00 Noon
Adjournment

THE MEETING OPENS

The Reverend Thomas R. Fitzgerald, President, St. Louis University, *welcomes meeting attendees.*

KEYNOTE SPEAKER

Robert E. Marshak, University Distinguished Professor, Virginia Polytechnic Institute and State University.

"I am calling for a crusade, a major investment of human and fiscal resources to meet the global challenges facing our nation and the entire world."

Keynote Address

Wednesday, November 30, 1983, 9:10 a.m.

THE GLOBAL MISSION OF AMERICAN HIGHER EDUCATION

Presiding: Wimberly C. Royster, *University of Kentucky*
Speaker: Robert E. Marshak, *University Distinguished Professor, Virginia Polytechnic Institute and State University*

Robert E. Marshak

We are entering a climacteric of western civilization. On the one hand, the scientific explosion of the last half-century constitutes the most remarkable outpouring of talent in the history of the human race. Science has not only broken the genetic code but has probed the outermost reaches of the universe with telescopes and penetrated the innermost structure of matter with large accelerators. Indeed, scientific progress has been so rapid in some fields that we are asking questions that boggle the mind and both elevate and humble the human spirit. We have been emboldened to ask these mind-boggling questions because of the extraordinary sensitivity of our instruments and the surprising conceptual unity that has emerged in our various subdisciplines.

It is awesome and a matter of wonderment that 15 billion years after the big bang, on a planet called Earth, a living creature called homo sapiens, with a brain that has only transitory existence, can ask serious questions about the creation of his universe, the evolution of his planet, the origin of his life and the nature of his intelligence. We do not have the full answers to these profound questions by any means, but we have been so successful in our pursuit of knowledge during the past 50 years that we can rightly claim that more insight into the workings of nature has been achieved during this period than in all recorded history.

While pure science is unquestionably the jewel of modern culture, we cannot wax equally rhapsodic about the applications of science. Recently, Pope John Paul II told the assembled members of his Pontifical Academy of Sciences that:

> From the scientific community . . . there have come discoveries which have helped the development of humanity in every field: diseases and epidemics have been conquered, new food resources have been found, communications between people have been intensified, the peoples of all the continents have come closer together, natural disasters have been foreseen and overcome. Who can list the benefits brought by science?

But, in the next breath, the Pope exhorted his audience:

> It is an irreplaceable task of the scientific community to insure. . .that the discoveries of science are not placed at the service of war, tyranny and terror.

Uppermost in the Pope's mind is the unprecedented threat to humanity that is posed by the possibility of nuclear war.

The Pope's concern with the nuclear arms race reflects a long-standing concern expressed by the scientific community since the end of World War II. Indeed, more than a quarter of a century ago, the famous Einstein-Russell manifesto declared that:

> The world is full of conflicts; and overshadowing all minor conflicts, the titanic struggle between Communism and anti-Communism. . . There lies before us, if we choose, continual progress in happiness, knowledge and wisdom. Shall we, instead, choose death, because we cannot forget our quarrels?. . .In the tragic situation which confronts humanity, we feel that scientists should assemble in conference to appraise the perils that have arisen as a result of the development of weapons of mass destruction. . . .We are speaking on this occasion, not as members of this or that nation, continent, or creed, but as human beings, members of the species man, whose continued existence is in doubt. . .

If the situation was so bleak in 1955 when the Einstein-Russell manifesto was issued, what are we to think of the present situation when between them *the* two superpowers control a stockpile of nuclear weapons containing the explosive power of more than one million Hiroshima bombs, and both of which continue (in large measure) to pursue military doctrines and deployments that treat nuclear explosives as ordinary weapons of war. If a Russian miscalculation could lead to the Korean Airline diaster, I dread to think of the consequences of a miscalculation with nuclear weapons.

While the threat of nuclear catastrophe is the foremost global problem facing mankind, a host of other world problems such as the increasing economic gap between developed and developing nations, overpopulation, food and energy shortages, dwindling stocks of natural resources, damage to the environment and urban decay must be solved. On the occasion of this annual meeting of the Council of Graduate Schools in the United States, I wish to discuss possible ways in which the higher educational enterprise can contribute both to the avoidance of thermonuclear war and to the solution of other global problems.

Why do I focus on American higher education as the institution which carries so much potential for significant impact on our global problems. There are several reasons for arguing this thesis and for enlisting the help of graduate schools in the massive undertaking that would be implied by its acceptance. First, the United States is Superpower No. 1; even the Soviet Union grudgingly agrees that the U.S. is the wealthiest, most powerful and most influential country at this stage in human history. The United States, however, will not maintain this position unless it provides the leadership to respond imaginatively, sensibly, and compassionately to the gamut of problems that have resulted from the technological, informational, and population explosions of the last several decades. To put it bluntly, the United States as the leading superpower, must play the crucial role in helping to carry the world into the next century without disaster. And in this herculean task, our government must look to its universities for the same level of support, dedication, and unselfish service that it received during World War II.

A second reason for the suitability of a global mission for American higher education is the favorable climate for intellectual discourse that now prevails. After some earlier vicissitudes, the present-day American university is relatively free of political pressures and ideological expediency and is a place where research and scholarship can be pursued without being subject to the changing moods of external publics. Indeed, the strong tradition of intellectual freedom in American universities is rightly regarded as the factor chiefly responsible for the flourishing state of basic science and scholarship in our country. To a remarkable degree, the academic scientist-scholar has been permitted to follow the bent of his own curiosity and the creative impulses of his own mind. Another prerequisite for the prospering of basic research and scholarship is openness of communication. Here too, the American scientist-scholar has been free to publish all his results, to receive publications from colleagues and laboratories throughout the world, and to enjoy personal contacts with many experts in his field. These conditions are part of the continuing process of learning, of intellectual challenge and of preparation for future research problems.

The question, and the imperative it seems to me, is whether the beneficent conditions governing basic research and academic scholarship can be carried over to certain types of applied research. Clearly, applied research is driven by the desire to satisfy human needs. It is proper that much applied research is carried on in governmental laboratories (and the non-profits supported by the government) to meet national goals established by the political process, and in industrial laboratories to produce products that satisfy the demands of the marketplace. But when we turn to the global problems of our complex, interdependent world, we enter a realm where there is an inadequate knowledge base and a great deal of research must be done simply to define the problems. The best minds must be brought together in an intellectual environment where national pride and profit making are not the determining factors. A university or consortium of universities, perhaps working with the private sector and government, seems to me to be the most appropriate mechanism for confronting those problems that transcend national boundaries and the immediate interests of multinational corporations.

In this connection, it is interesting to recall that as early as 1968, a courageous physicist from the Soviet Union, Andrei Sakharov, had pinpointed the global problems threatening disaster for mankind in his now famous essay, "Progress, Coexistence and Intellectual Freedom." In this manifesto (never published in the USSR), Sakharov told us:

> The division of mankind threatens it with destruction. Civilization is imperiled by: a universal thermonuclear war, catastrophic hunger for most of mankind, stupefaction from the narcotic of "mass culture," and bureaucratized dogmatism, a spreading of mass myths that put entire peoples and continents under the power of cruel and treacherous demagogues, and destruction or degeneration from the unforeseeable consequences of swift changes in the conditions of life on our planet.

Sakharov continued his declaration with a basic prescription for progress in the solution of the world's ills, to wit:

> Intellectual freedom is essential to human society: freedom to obtain and distribute information, freedom for openminded and unfearing debate and freedom from pressure by officialdom and prejudice. Such a trinity of freedom of thought is the only guarantee against an infection of people by mass myths, which, in the hands of treacherous hypocrites and demagogues, can be transformed into bloody dictatorship. Freedom of thought is the only guarantee of the feasibility of a scientific democratic approach to politics, economy and culture.

It is clear that Sakharov understood the supreme importance of intellectual freedom in dealing with the large human (i.e. global) problems of our time. It is a great tragedy that, instead of encouraging vigorous dialogue between Sakharov and the West, the Soviet Union has silenced its most outstanding scientist-humanist. Parenthetically, the Soviet Union could still make a dramatic gesture of releasing Sakharov to the West and thereby contributing more than it realizes to the lessening of present tensions.

A third major reason for assigning a global mission to the American university is that its excellence in teaching and research at the graduate level is fully recognized by foreign nationals. Indeed, at the present time, the number of students and faculty are at all time highs. I have been told recently that the number of foreign students in American colleges *and* universities is now approximately 350,000 in any one year. It is well known that many of our graduate departments in science and engineering could not function properly without the substantial numbers of foreign graduate students and faculty engaged in teaching and research within these departments. I claim that the American university system has become so internationalized that it is in a better position to undertake the responsibilities of a world university than the limping United Nations University located in Tokyo.

Fifteen years ago, when I took up the cudgels with a group of friends from the American Academy of Arts and Sciences, for the creation of a world university, we envisaged an institution that would manifest its special character in three essential respects: a) in the orientation of teaching and research to global problems and to intellectual interests widely shared among the world's peoples; b) in the international composition of its members; c) in its painstaking effort to foster by its work a perspective of tolerance and comprehension towards the different cultures constituting mankind. It seemed for a while that the United Nations would follow through with similar ideas by establishing a UN university in Japan. Unfortunately, the final design of the UN university did not make provision for a student body—assigning to it merely a ''think tank'' function—and thereby reduced it to ineffectuality. I now believe that the American university system is in a better position to fulfill the goals of a world university than the UN university itself.

It must be admitted that the decade of the 1970s did not produce that American leadership which enabled us to grapple with pressing global problems. We were too busy disentangling from the Viet Nam disaster and the Watergate fiasco. The hour is late but I cannot believe that we have entered that deep night from which there is no return. I am urging that during the 1980s, American universities should respond to Sakharov's courageous manifesto of 1968 (and his even more exemplary behavior since that time) with a solemn commitment to come to grips with the global problems about which Sakharov spoke in 1968 and with the stark realities that must now be faced by every man, woman and child on planet Earth. With all due respect to the contributions that government and the private sector have made and can continue to make toward the solutions of these problems, the time has come for American universities to accept the primary responsibility to forge a new set of value systems for our own society and to help generate a new set of long-term global goals. American higher education can accept this large responsibility because it, more than any other institution in our society, has demonstrated that it is the bastion of ''pluralism, humanism, tolerance, openness to alternative truths and ability to distinguish prejudice from error.'' This quote is taken from Eric Ashby's book *Adapting Universities to a Technological Society.*

Before I mention some ways in which I believe the global mission of American higher education can be implemented, I must deal forthrightly with caveats expressed by some distinguished members of academe that the very concept of *mission* for an American university is a contradiction in terms. Thus the late Charles Frankel, the former director of the *National Humanities Center,* wrote in the December 1977 issue of *Change* magazine that the humanities disciplines are:

> the most aristocratic in their pedigrees; in a world bound to the wheel of change, they stress the persistence of unchanging issues; they do not offer the prospect of progress in knowledge as the sciences do, nor do they even offer, as do the social sciences, the promise of such progress; they raise questions about meaning, purpose and values that a hurried world, enamored of technique, finds uncomfortable.

I do not wish to argue whether Einstein's theory of relativity is ''as aristocratic in its pedigree'' as Shakespeare's Hamlet. I do acknowledge without hesitation that philosophy, history, literature, religion, and the arts raise questions about the meaning and purpose of life and help generate the values that inform the human condition. What I find difficult to accept is the attitude of a goodly number of colleagues in the humanities that they are the only true custodians of the past and of traditional learning, and I deplore their reluctance to engage in dialogue with social scientists and scientists in order to make a dent in the global challenges that confront us. I should like to invite some of my humanities colleagues to orient their disciplinary skills to the present and future as well as towards the past and to extend their concerns beyond the traditional boundaries of their disciplines to the areas of public policy formulation, the development of new educational models, thematic studies, and even problem-solving activities. A truly humanistic approach to the exigencies of our modern dilemma will require a sharing of intellectual resources from all branches of learning.

I quote from Eric Ashby again, who neatly captures the modern role of higher education in *Western* society when he says

> the paradigm of a university graduate used to be the conventional person ready to take responsibility for preserving a set of values which he felt no need to question. . . . That sort of person cannot cope with the modern world. The contemporary paradigm is a person educated for insecurity, who can innovate, improvise, solve problems with no precedent.

To educate the paradigmatic university graduate of the contemporary era requires faculty members who are willing to reconcile the intellectual detachment essential for good scholarship with the social concern essential for the good life. Ashby has put the same thought another way:

> If students do not learn from their teachers that the academic tradition can coexist with concern for society, they will reject the academic tradition.

I hope that I have persuaded you that American higher education has no option but to accept a major global mission for the 1980s and beyond. The problem is to identify the educational strategies required to give meaning to this heightened global mission.

American universities can take a giant step forward in the furtherance of their responsibilities by working out a comprehensive plan to superimpose applied research and mission-oriented studies onto the present structure of professional and discipline-oriented programs. The applied research and mission-oriented studies would deal with the global problems of staggering proportions that confront the U.S. and the rest of the world and would have in common the attempt to firmly implant the usual professional and discipline-oriented career goals within a global, humanistic, multi-disciplinary context.

In my view, a vast network of applied inter-disciplinary teaching and research centers devoted to global problems should be established, situated on various campuses throughout the United States. Some examples of what I have in mind are as follows.

A Center on Peace and International Security covering subjects like control, disarmament, and limitations of national sovereignty. For more than two decades, the Pugwash Conference (founded by Cyrus Eaton in Pugwash, Nova Scotia, in the late 1950s) has been the itinerant equivalent of such a center. The Pugwash Conference has brought together scientists, engineers, and social scientists from many countries—including the Soviet Union—for unofficial discussions of key topics under the rubric of peace and international security. The conferences were instrumental in preparing the ground work for the Nuclear Test Ban Treaty and Salt I. Several years ago, a Center for Arms Control and International Relations was established at the Kennedy School at Harvard under the directorship of the distinguished chemist, Paul Doty, who had been active in the Pugwash Conferences. A number of major institutes dealing with other facets of this overriding global problem should be established on several American campuses. An intense inter-university dialogue and publication of joint studies in this area would be invaluable. Time is short and much remains to be done.

A second example of what I have in mind would be a Center on Problems of Developing Countries (including technology transfer, urbanization and industrialization, and agricultural and rural development). There is room here for many sub-institutes on different campuses. For example, an Institute on Communications in Developing Countries could deal with remote sensing and other applications of satellite technology (leading to the location and identification of natural resources, the assessment of weather and crop patterns, and the production of other kinds of maps). It could also study effective systems for gathering, organizing, disseminating, and using data and information in developing countries. (UNESCO is beginning to move in this direction.) An Institute on Technology Transfer in Development could cover such topics as the development of technological awareness, relevant technology and technology choices, management skills, and agroindustrial technology. Even an institute on the technological development of a populous "middle-tier" country like Nigeria, Mexico, or Indonesia could make an important contribution to fleshing out a model that would be applicable to other populous, resource-rich developing countries, which, in turn, could assist the technological development of less populous, less fortunate, neighboring countries. I have had some experience with this type of operation—involving Nigeria—and shall briefly recount this experience below.

A third example of a global-oriented center would be a Center on Urban Problems in Post-Industrial Societies (including transportation, housing and pollution). American cities share with large cities in other postindustrial societies the problems of traffic congestion, substandard housing, crime, and unacceptable levels of air and noise pollution. In addition, American urban problems are exacerbated by racial conflict, high levels of unemployment and poverty, grossly inadequate health and legal services, and the inability of the public educational system to meet social needs. To the best of my knowledge, there is no comprehensive center that studies on a comparative basis the horrendous problems of urban decay in the large cities of the developed, and developing, world. A center should also be established at a university in a developing country, and it should have a close working relationship with the proposed center in the United States.

The above examples constitute only a partial listing of the types of applied interdisciplinary teaching and research centers that should, in my view, be established at American universities to implement their global mission.

I have promised an illustration from a recent personal experience that will further clarify what I have been trying to say. In the spring of 1979, when I was still its president, City College hosted a week-long Nigeria-U.S. Workshop on Technological Development in Nigeria. Nigeria has a land area larger than that of France and West Germany combined, with a population approaching 100 million people and a gross national product greater than the total for the rest of West Africa. Following the end of the Nigerian Civil War in 1970 and the subsequent boom in oil production, Nigeria became the most prosperous country in Black Africa. Mindful of the need for indigenous managerial and technical personnel to handle in a well-planned and rational manner the nation's emergent wealth and long-term development, the Nigerian government instructed its National Universities Commission to seek assistance from the United States to help Nigerian universities provide the training and research needed to meet the demands of that nation's rapid technological development.

City College met the initial challenge by arranging the aforementioned Nigeria-U.S. workshop in 1979. An American Advisory Committee consisting of representatives from universities interested in the developing nations, as well as the private sector and government, was formed. The workshop received cooperation and support from U.S. AID, and a number of foundations and industries. The workshop's deliberations led to a series of recommendations for implementation by our respective governments. These recommendations took cognizance of the fact that if Nigeria is to receive appropriate technology, it must be in a position to absorb, assimilate, and diffuse the transferred technology within its economy on a self-sustaining basis. The Nigerian government followed through with the creation of a Ministry of Science and Technology and the establishment of several new institutes of science and technology.

What was done on the American side to seize the opportunity offered by Nigeria to facilitate the knowledge transfer process to that country, with all its humanitarian and geopolitical implications? Very little to date. It is true that a year after the workshop, an agreement was worked out between our two governments on how the United States and Nigeria could cooperate in the application of technology to Nigerian development. The implementation of such an agreement required an approach on the American side that would provide continuity, wide access to the requisite competencies, and the involvement of the younger generation of American scientists and engineers. Such an approach was not taken and not much has happened since then. In my opinion, the only effective response would have been to establish in the United States a coordinating institute under the aegis of a consortium of universities. Such a teaching and research institute would attempt to understand the impact of technology transfer on the economic, social, and ecological conditions of the country into which it is introduced and, conversely, to delineate the effects in the developing nation of government policies, market incentives, and institutional social constraints on the technology transfer process.

The multidisciplinary nature of the problem, the need to do research before there is a clear payoff in the United States in economic or political terms, the necessity to involve educational institutions in the developing countries because they provide the future technical, professional, and managerial infrastructure that is required—all point to the conclusion that American higher educational institutions, especially the graduate schools, must accept the chief responsibility for organizing centers or institutes for applied research and advanced training that will assist developing nations to overcome as rapidly as possible the gap that exists between them and developed countries. In the specific case of Nigeria, an applied interdisciplinary teaching and research institute on a university campus could assume the overall responsibility—in joint partnership with industry and government—to match American capabilities to Nigerian institutions and to meet the developmental challenges posed by that country.

Up to this point, I do not think that anyone would take issue with my basic premise, that the spectacular advances of science and technology have created a profound interdependence of all human societies and that, consequently, many of our national problems have a truly global context. I also do not believe that anyone would question my view that American higher education must somehow cope in an institutional fashion especially through its graduate schools, with these startling developments. Some may differ with me on the degree to which American universities might be expected to engage in applied interdisciplinary research activities devoted to global problems, and suggest alternative models such as governmental laboratories, non-profit "think tanks" or dedicated research institutes under the control of the multinationals. Close cooperation by universities with government, the non-profits, and the private sector certainly is not precluded in the performance of applied global research in academe but would be strongly encouraged.

I do believe, however, that society will be best served in these areas if the university assumes the dominant role. A key advantage would be that the placement of such highly significant applied research undertakings in university environments would not only lead to more integrated multidisciplinary studies, but would profit from the presence of graduate students eager to relate their disciplinary knowledge to policy formation within a global framework. Academic programs could be created that would emphasize the commonality of the many global problems besetting all mankind and that would inculcate a perspective of tolerance and comprehension towards diverse cultures. The idea would be to superimpose a global outlook onto the present structure of discipline-oriented graduate programs. A "Global Educational Model" of sorts would be articulated whose objective would be to educate a graduate student—on either the master's or doctoral level—who would be motivated and committed to serve the world community.

In more concrete terms, the global educational model could be implemented on the master's level in the discipline-oriented social sciences and natural sciences or in the professional schools. An additional year could be used to convert the present master's programs into "Master of Philosophy" programs in applied social science or applied natural science. During this additional year, the student would be exposed not only to the global implications of his or her particular discipline but also the question of values and the matter of responsibility to fellow humans.

Clearly, this will involve cooperative efforts of scholars representing disciplines in science, liberal arts, and professional studies.

The "Global Educational Model" can be implemented in a similar fashion on the doctoral level by adding a year or two of globally-oriented seminars—designed by multi-disciplinary faculty teams from the social sciences, humanities, science and the professional schools—and converting the regular Doctor of Philosophy degree into something like a degree in "Doctor of Humane Philosophy" (in analogy to the honorary degree, Doctor of Humane Letters.) Let me suggest how this might be carried out. Suppose a student is doing his or her doctoral thesis on solar energy. When the student is awarded his Ph.D., he or she will probably secure a job in one of the companies interested in solar technologies. I am proposing that some of the students doing discipline-oriented research on solar energy spend an additional year or two extending their knowledge of global energy problems from the technological, policy and humanistic points of view. When these students receive their degree of "Doctor of Humane Philosophy", they would be more qualified for international, governmental, or multi-national corporate assignments.

Or, as another example, a student working on a discipline-oriented doctoral thesis in molecular biology might choose to spend an additional year or two taking interdisciplinary seminars on molecular biology's role in improving the quality of life. As Roger Revelle has pointed out in a report on his recent trip in Nigeria, an understanding of molecular biology can help in ten areas that affect the welfare of the Nigerian people: health, nutrition, food processing, agriculture, forestry, fisheries and aquaculture, energy production and conversion from biomass, industrial materials, and human reproductive biology. All of these applications improve the quality of life for the inhabitants of many developing countries and several of them would certainly be covered in the interdisciplinary seminars taken by the interested doctoral student in molecular biology. The point would be that the extra year or two following the completion of the thesis in molecular biology would be used to identify human needs on a global scale amenable to solution through molecular biology. Other examples can easily be given.

It should be remarked that the total time required to complete this new type of doctoral program need not be longer than the time required for the traditional Ph.D. Program, if the undergraduate and graduate years of study are carefully integrated. Evidently, special fellowships would have to be made available to these students. In short, the "Global Education Model" is not intended to train a generalist who is incapable of completing the normal discipline-oriented master's or doctor's degree but rather to educate the talented individual, with the capacity for graduate research, to relate his or her discipline-oriented knowledge to the policy and humanistic dimensions that are required to solve urgent world problems.

I fully realize that many centers or institutes devoted to science, technology and society have sprung up at various universities throughout the country. But I have the distinct impression, in large measure, that most of these centers are underfunded, insufficiently focused and unprepared to generate the innovative educational programs that will train our young people to relate to problems of global concern. I am certain that some of these centers will ultimately make valuable contributions to global research and advanced training. However, this will not suffice; I am calling for a crusade, a major investment of human and fiscal resources to meet the global challenges facing our nation and the entire world. I urge all American universities to participate in this crusade and the Council of Graduate Schools to assume the leadership role.

In conclusion, the university system in this great land of ours must serve as the custodian of the future interests of mankind. This will be possible if the American academic community is willing to balance the celebration of scientific creation and scholarly accomplishment with the application of knowledge to global needs and the sensitivity to human values. Only in this way can we defeat the Orwellian prophecy.

Concurrent Sessions

Wednesday, November 30, 1983, 10:45 a.m.

1. THE FEDERAL LEGISLATIVE PROCESS

Presiding: Thomas J. Linney, *Council of Graduate Schools*
Presenters: John Vaughn, *Executive Vice President, Association of American Universities*
William D. Blakey, Counsel, *Committee on Education and Labor, Subcommittee on Postsecondary Education, U. S. House of Representatives*

John Vaughn

As you well know, the diversity of graduate education is such that much of the federal support for it falls beyond the purview of the Department of Education and hence it will not be directly affected by the reauthorization process. I want to talk about a major new initiative that is underway to try to get at that part of the graduate education and research enterprise in this country.

About a year ago the Council of Graduate Schools joined with the Association of American Universities, the Association of Graduate Schools, and National Association of State Universities and Land-Grant Colleges to produce a policy statement entitled "The Federal Role in Graduate Education." The opening two paragraphs of that paper, I think, capture the problem with which we are all now confronted and suggests a general approach of how to attack it:

> There is a simple and clear prescription that can serve as a guide to national policy with respect to graduate education. It is: Attend to the education and training of the nation's best young minds or fall behind those nations that do. National policy in the United States for the past decade and more has departed from the prescription and the costs are now beginning to be counted. Successive national administrations of both parties confronted with real economic problems and the need to reduce federal expenditures have yielded too easily to the half-true and therefore doubly seductive notion that freely operating labor markets unaided by external stimulus or correction will produce the optimum number of highly trained, first class people distributed as needed throughout our society.
>
> It is time now to bring knowledge to the aid of theory. There is ample evidence that the nation cannot presume the availability of a sufficient number of highly trained, intelligent scientists and scholars unless national policy provides incentives adequate to bring about that result.

The diversity of graduate education and research in this country is properly reflected in the diversity and support for its activities. The federal government, state governments, and industry and universities themselves contribute substantially to the resources for graduate education and research. Notwithstanding that diversity, the role of the federal government is and will remain critical. Federal support has declined for the last fifteen years, however. A new unique bi-partisan effort designed to restore the capacity of our research universities to conduct research in advanced education has recently been undertaken by two Missouri Senators—Senators Danforth and Eagleton—who have now been joined by sixteen other Senators as co-sponsors of the bill, S-1537 entitled "The University Research Capacity Restoration Act of 1983."

The really unique aspect of S-1537 is that it is a bill never intended to be passed by the Congress, but is instead intended to serve as a blueprint for action by several congressional committees over the next five years. The bill addresses six basic and urgent needs:

1. Strengthening federal support for fundamental university research.
2. Modernizing and replacing instrumentation of university laboratories and facilities.
3. Increasing graduate fellowship support to individuals and to university science and engineering departments.
4. Expanding faculty development awards and programs that promote the initiation of research careers by young faculty.
5. Assisting universities on a matching basis in the rehabilitation or replacement of outdated research facilities.
6. Improving undergraduate science and engineering instructional programs.

To accomplish these goals, the bill proposes to increase federal funding by a total of approximately $1 billion annually over a five-year period. That increase would be targeted in the six major federal agencies that provide 95% of the federal support for university basic science and engineering research: the National Science Foundation, the National Aeronautics and Space Administration, the National Institutes of Health, and the Departments of Agriculture, Energy, and Defense. S-1537 serves as a blueprint for a unified course of action to be effected through separate amendments to authorization and appropriations bills for the six agencies involved. Because the bill is not a piece of legislation to be passed itself but is instead a blueprint to direct actions in the bills of the committees governing the budget of these separate agencies, generating a substantial list of co-sponsors is essential to the success of this initiative. There are now eighteen co-sponsors in the Senate. In the House of Representatives, preliminary steps have been taken to generate a parallel course of action and we will continue to work in the next year with the House leadership to try to generate a similar initiative. It is timely for all of you if you have not done so to communicate your support to Senators Danforth and Eagleton, the principal sponsors of this legislation, and to urge other senators to become co-sponsors of S-1537. It is bi-partisan, but it is something that has not been tried before; it is difficult to explain, not only to colleagues on campuses and to others who work with us in Washington, but to members of Congress. It is going to be devastatingly complicated and the task forces of campus and Washington-based government relations have been put together, six task forces—one for each of the agencies named in the legislation—to try to follow through step-by-step this process. Jerry Shannon and the Association of American Universities have tried to coordinate the effort to increase co-sponsors and we are fairly optimistic, although we recognize that it will be a difficult process and in the end it will involve negotiations item by item on a whole host of pieces of legislation. That is the effort; it is unique; but I think that it holds some promise and we certainly hope that we can receive the support of all of you for a common cause.

William D. Blakey

There are a couple of things I am going to send to you in the mail. The first is a staff report and an analysis of the fiscal year 1984 of the budget. Although it is slightly out of date now, it contains a description of all of the programs within the jurisdiction of the Subcommittee on Postsecondary Education, all of the higher education programs, primarily loan and grant programs. The second thing I am going to send you is a document prepared by the House Budget Committee; it is their version of the economic summary. It is important because the budget and the budget process is going to play a very important role in upcoming funding decisions affecting higher education decisions and most especially the upcoming reauthorization. That document also explains why and how the deficit came about. The other document is somewhat more important than the others; I hope you will order a copy of it. It is very short. It is called "Guide to the Powerless and Those Who Don't Know Their Own Power." It is a mini-manual on the legislative process—how to be an effective lobbyist. It is written by Samuel Halpern and is available from the Institute for Educational Leadership, 1001 Connecticut Avenue, NW, Suite 310, Washington, D.C. 20036.

The Higher Education Act was first authorized by Congress in 1965. Since then on a relatively periodic basis, every five years that Act has been extended. The first time they did not follow the five year scenario, they added some amendments in 1968 which started to throw us off course. There were then amendments in 1972, 1976, 1980 which is the most recent reauthorization, and most of the provisions will expire at the end of the government's fiscal year in 1985. We are beginning this reauthorization process slightly ahead of time. What I want to emphasize are the points at which you, individually, and the collection of graduate schools—members of this organization as well as AAU can impact this process for the benefit of graduate education.

In the House of Representatives are sixteen standing committees, each with a number of subcommittees. Part of the problem John alluded to in terms of the whole graduate instrumentation facilities and research effort is the problem that would be created if that bill S-1537 were ever intended to work its way through the legislative process. It would end up in at least three different committees on the House side and no telling how many subcommittees. Our Subcommittee is part of the Committee on Education and Labor. We are responsible for all of the higher education legislation except those in health educational programs and those which relate to the land-grant colleges and universities. We, then, are responsible for about $6.5 billion in federal expenditures which benefit higher education, some part of which is of course graduate education. The subcommittee that I work for will have the initial responsibility for developing the reauthorization legislation for the Higher Education Act. That legislation right now covers about thirteen different titles, one of which is specifically related to graduate education, Title IX, and another two or three of which affect various parts of the whole graduate education effort as far as the federal sector is concerned. In Title IV resides a guaranteed student loan progam as well as the national direct student loan program and the college work-study program, all of which in the student financial aid sense benefit graduate education. Title IX is the graduate education title which contains currently funded graduate programs, the graduate and professional opportunities, the public service fellowship program and two programs which benefit lawyers, The Council on Legal Education Opportunity and the Law School Clinical Experience. There is also a very important program, National Graduate Fellowships, which was first created in 1980 which has not yet been funded by the Congress.

In mid-October, our Subcommittee began oversight hearings on various aspects of the Higher Education Act, focusing primarily on the programs in Title IV, student aid programs. We spent one day focusing on graduate education and looking at such areas as Guaranteed Student Loan Program and debt limits and debt burdens affecting graduate students. We also looked at the Graduate/Professional Opportunities Program—how well that program has been working to date—and also heard from a panel of graduate educators about their ideas for improvement in the current programs and for creating new programs. That hearing process is the fundamental fact finding process that the committee or subcommittee goes through. That hearing process will take on a slightly different tone next year. We will then not carry out what we call oversight hearings but instead will have legislative hearings. They generally follow the introduction of the bill and are focused specifically on a piece of legislation. We are now in the final stages of developing Chairman Simon's reauthorization and recommendation and you will hear from him tomorrow morning about what he is proposing in the area of graduate education. That bill will be introduced probably in late January or early February and we will begin hearings in mid-February as well as the administration's reauthorization recommendations.

In addition to putting together the bill and holding the hearings, the subcommittee's main function is partly a consultative one as well as a specific act of marking up an actual bill—a group of members going through the bill line by line, sometimes word for word and deciding what will be in; what will be out;

how large the authorization levels will be. That, then again, is a very important time for you to communicate what you think about what is included in a particular bill. That same process is repeated at the full committee level. The full committee also writes a report and that report becomes a description of the bill and legislative history in a very capsule form. The floor consideration of this bill follows the reporting of the committee and a hearing before the House Rules Committee which decides under what circumstances a bill goes to the floor, whether an open rule or closed rule. There are limitations placed upon the debate, upon what kind of amendments can be offered and by whom when there is a closed rule. When there is an open rule, there is generally a legislative free-for-all on the floor with any member getting up and offering anything he/she wants to. Here again, there is an opportunity for you to influence your member positively or negatively about an amendment which may be considered or he/she may be considering offering on the House floor. Members of the committee are given preference in the House in terms of offering amendments on the House floor on a piece of legislation. After that bill has been considered, it is then acted upon by the House.

I think there are three keys that any citizen/politician and that is what you are should keep in mind when lobbying a member.

1. First and perhaps most important to you is to know your member.
2. Know your subject matter.
3. Know how to process the work.

I would conclude with a little final reference to this reauthorization process. John has made an excellent point about the whole research instrumentation issue. It is a problem which I think disturbs Congress to see the magnitude of the need in the nation's higher education institutions. The strategy that the associations have come up with I think is well advised in that it tries to spread the burden around among as many people as possible with the hope that it is a better way to get some response to the problem. We will be looking at several of the items which John has listed when we do reauthorization. I hope that you will look at this opportunity as just that since I think there is a unique opportunity here. Education for the first time in my forty years is on the front burner politically. At the federal level I think it is going to stay there the first Tuesday after the first Monday in November, 1984. If we wait for some other great coming I think we are going to be waiting for a long time; we should strike now while the iron is hot!

CGS PRESENTS AWARDS

Gustave O. Arlt Award in the Humanities

David Pike (r) receiving Arlt Award.

CGS/University Microfilms International Distinguished Dissertation Award

CGS/UMI Award being presented to Christopher Gudeman.

Luncheon

Wednesday, November 30, 1983, 12:00 noon

PRESENTATION OF AWARDS

Presiding: Vaughnie J. Lindsay, *Southern Illinois University at Edwardsville*

GUSTAVE O. ARLT AWARD IN THE HUMANITIES

Presented by: James Ballowe, *Associate Provost and Dean of Graduate School, Bradley University*

CGS/UNIVERSITY MICROFILMS INTERNATIONAL DISTINGUISHED DISSERTATION AWARD

Presented by: Daniel J. Zaffarano, *Vice President for Research and Graduate Dean, Iowa State University*

THE GUSTAVE O. ARLT AWARD IN THE HUMANITIES

The Gustave O. Arlt Award in the Humanities is in honor of the Council's founding president, a noted humanist, scholar and administrator. The award honors a young American scholar who has made a significant contribution to a designated field in humanistic studies. This year the specified field was Modern Foreign Languages. The eleventh Arlt Award was presented to David Pike, assistant professor in the Department of Germanic Languages at the University of North Carolina at Chapel Hill. Dr. Pike received his Ph.D. in 1978 from Stanford University. The work for which Dr. Pike earned the Arlt Award is *German Writers in Soviet Exile, 1933–1945,* Chapel Hill: University of North Carolina Press, 1982. A certificate and honorarium of $1,000 were presented to Dr. Pike by James A. Ballowe, Associate Provost and Graduate Dean at Bradley University and Chairman of the CGS Gustave O. Arlt Award in the Humanities Selection Committee.

Peter Demetz, Sterling Professor of German Languages and Literature, Yale University and a member of the Selection Committee commented that, "it is David Pike's essential virtue that he has chosen a difficult and interdisciplinary field, overlapping with political history, sociology and esthetics, and has progressed rapidly . . . Our scholarly profession should have substantial reasons to be proud of David Pike and his pioneering book, written at an early stage of his career as scholar and teacher."

In commenting on Dr. Pike's prize-winning book in a letter read at the presentation, Dr. Arlt expressed his feeling that "it is a brilliant example of the elusive quality that we call scholarship...He has defined his objective and—most importantly—has placed it in its proper historical context. He has met and dealt with the obstacles and difficulties—geographical, bibliographical, and human. And he has produced a book that I am proud to add to the list of distinguished award winners who have preceded him."

CGS/UNIVERSITY MICROFILMS INTERNATIONAL DISTINGUISHED DISSERTATION AWARD

The CGS/UMI Distinguished Dissertation Award, established by the Council of Graduate Schools in the U.S., with funding by University Microfilms International, recognizes excellence in doctoral research. The first award, consisting of a formal citation together with a $1,000 honorarium, was made in 1981. Broad disciplinary areas are designated each year; the field for 1983 was Mathematical and Physical Sciences. This year the award was presented to Christopher Gudeman, a postdoctoral research associate at the University of California-Berkeley. Dr. Gudeman received his Ph.D. in chemistry in 1982 from the University of Wisconsin and was selected as the award winner for his dissertation, "Microwave Spectroscopy of the Formyl Ion, the Isoformyl Ion, the Thioformyl Ion and Hydrogen Cyanide." Dr. Gudeman's work dealt with the microwave spectra of small molecules and ions, some of which have great importance in astrophysical measurements.

When presenting the award on behalf of the Selection Committee, Daniel J. Zaffarano, Vice President for Research and Graduate Dean, Iowa State University, said that Dr. Gudeman's dissertation work "produced nine published papers in refereed journals, with five more in preparation. Fourteen oral papers were presented. Letters of support for his nomination contained phrases such as 'a monumental achievement,' 'has gained international recognition,' 'incredible results,' 'superb experimentalist.' Several letters of support took three to five pages, single spaced, to describe his achievement."

Concurrent Sessions

Wednesday, November 30, 1983, 3:45 p.m.

5. GRADUATE SCHOOL DATA BASES

Presiding: George W. Kunze, *Texas A&M University*
Presenters: *Jean E. Girves, *Assistant Dean, Graduate School, The Ohio State University*
‡Frank Goldberg, *Assistant Dean, Graduate School, Northwestern University*

George W. Kunze

A data base may be described as a software package comprised of a collection of interrelated data items organized in a form that may be processed by application programs. A specific data item needs to be stored within the data base just once. It is then available to any user who is authorized to use it.

Data bases may be purchased commercially or may be developed in-house. There are currently several companies that either have a software package or are prepared to develop a software package for the purpose of computerizing student records. The software packages commercially available to date are designed to serve largely the record needs of the undergraduate student. Acquisition of these software packages will normally result in considerable additional progamming in order to accomodate the needs of the graduate student or graduate programs.

One of your panelists today represents an institution that purchased a data base and is now in the process of developing application programs, while the second panelist represents an institution which chose to develop its own data base and application programs. Dr. Jean Girves of Ohio State University will describe for us their approach to the development of application programs for computerizing their graduate student records; Dr. Frank Goldberg of Northwestern University, will describe for us the development of their data base and accompanying application programs.

Jean E. Girves

Nearly 10,000 graduate students are enrolled in over 200 master's and doctoral degree programs at Ohio State. The staff are responsible for registration and scheduling, auditing and maintaining student records, certifying requirements for graduate degrees, monitoring rules established by the Graduate Council, counseling with students, administering the fellowship program, determining probationary status, responding to surveys, and preparing reports. We estimate that we have over 160,000 student contacts each year.

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*Abstract given here. Copy of complete presentation available from the presenter.

‡Abstract given here. Copy of complete presentation available upon request from CGS Washington office.

We now have two microcomputer systems with a total of 16 terminals, one on nearly everyone's desk. We plan to implement an information system which will assist us in our daily activities as well as to establish a historical database that will serve as the basis for many studies pertaining to graduate education.

Data from existing databases on campus will be downloaded onto our system. By combining information from these existing databases with information unique to the Graduate School we will have a complete file of each individual student and we will be able to summarize the data in every possible way. The following categories of data will be included: admission, student characteristics, student progress, financial aid, faculty, and academic unit. Studies on retention, financial support patterns, and foreign students as well as annual reports for each department are examples of studies we plan to conduct. With our new database, we will be able to conduct studies we have tried in the past; we will be able to conduct studies we have only talked about; and more importantly, we will be able to conduct studies we have not even thought about yet.

In addition, having developed part of the database, we can begin implementing portions of our information system. Many records management activities can be accomplished before the entire database has been completed, which is the primary advantage in having our own system. We can proceed at our own pace.

Automating the daily activities of the Graduate School staff will not result in the elimination of any staff positions, rather it will enable us to provide better, more timely information to students, faculty, and other administrators and to spend a little more time with each student. In fact, we have hired a systems analyst. Other effects of our automating office activities include 1) changing responsibilities of staff members; 2) changing communication patterns among staff; 3) standardizing the filing systems in each office; and 4) paying more attention to security. We are learning to adjust to the uncertainty resulting from these changes.

Of course, there are problems. Despite what the salesman says, the equipment and software you need are not always available. It takes time to learn, understand, and become comfortable with a computer system. And, the most difficult problem we are just beginning to face is converting data from the administrative computer system to our own system. This is a long range problem.

Still, the benefits far outweigh the problems and adjustments that need to be made. The availability of accurate and timely information will serve as a basis for policy making. Automating the office is a very long and complicated process. We are moving one step at a time.

Frank Goldberg

The Graduate School of Northwestern University is in the advanced stages of developing a unique data base designed exclusively to conduct analytic studies concerning the full range of issues related to graduate education at Northwestern. This data base goes beyond the state of the art information systems, including on-line admissions, student information and financial aid systems that are currently supporting the administrative functions of the Graduate School. The need for an analytic data base was the result of the realization that an effective method for managing data which inevitably comes from different sources was needed in order to answer questions relating to recruitment, selection, attrition, financial aid, and the quality of student performance.

The process of designing such a data base is a complex task because of the diversity of graduate education. An extensive amount of planning was undertaken before the project commenced. Analytic models were developed as part of the planning process to ensure that the appropriate information would be collected and stored in a form that was suitable for analysis. Once the planning was completed the data gathering commenced. The data base was assembled by combining data from several computerized information systems supplemented with hard copy records. The data base includes both an historic record in that it starts with students matriculating at Northwestern in 1972/73, and a continuing component as it will be updated each quarter. To this point there are over 57,000 records with more than 200 variables per record.

Several features of this data base make it unique. It combines information which is normally maintained in separate information retrieval systems. It provides detailed data related to the progress through the Ph.D. process which is not contained in most other historic student record systems. Finally, it provides the capability to look cross-sectionally at a department or other unit to understand recruitment, selection, student progress and financial aid issues.

6. THE SCHOLAR-COMPUTER CONNECTION

Presiding: *Christopher Oberg, *Claremont Graduate School*
Presenter: ‡Daniel Updegrove, *Director, Planning and Modeling Activities, EDUCOM*

Christopher Oberg

The use of computation in scholarly inquiry is changing the way research is done, in nonquantitative as well as quantitative disciplines. While the rhetoric of the "information revolution" continues unabated, there is one truism embedded within it: there are more data being generated and being delivered to further places at faster speed, than ever before. This "electronic information" era is the third stage of human information storage, with the first stage being human memory and the second being paper and the printing press.

The availability of electronic information changes the way we phrase questions and conceive problems. To illustrate this phenomenon, one can consider:

1. How the four-color map problem was "solved after it was shown that any closed space has a finite number of subspaces into which it can be divided and,
2. How nuclear reactors can be approximated mathematically, making the computer the laboratory for the mathematician; and,
3. How crisis management can be studied in simulation; and,
4. How medical researchers can diagnose and research conditions in the absence of a major medical library; and,
5. How text processing can be used to liberate the communication talents of report writers; and,
6. How scholars can search ancient manuscripts with the assistance of the text analysis package IBYCUS.

Given that computers will burrow their way into our existence, there are four encouragements to those of us who must help manage their progress:

Encouragement #1. Don't be indecisive because you know everything will change.

Encouragement #2. Trust your intuitions. Decisions about computers aren't that different.

Encouragement #3. Beware the passions. Some logic generally prevails.

Encouragement #4. Be inventive. Computers are not about bits and RAMS, they're about advancing knowledge.

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*Abstract given here. Copy of complete presentation available upon request from CGS Washington office.

‡Abstract given here. Copy of complete presentation available from the presenter at EDUCOM, P.O. Box 364, Princeton, NJ 08540.

Daniel Updegrove

The proliferation of microcomputers and their stand-alone applications has masked an equally important trend: the growth of electronic mail and computer networks. Using mail and networks, university personnel can now communicate conveniently and cost-effectively with colleagues across the campus and across the world.

Intra-institutional electronic mail using time-shared access to a central mainframe is one approach. Institutions as diverse as Dickinson College and Stanford report success with locally-developed software packages that facilitate creating, receiving, filing, and retrieving messages. Stanford even carried out an elaborate behavioral study before recommending continued use of its system.

Network access to a remote mail system is a second approach. Many microcomputer users phone the nearest access node of Telenet and TYMNET to reach such mail systems as Telemail, The Source, and EIES. Of course such systems are also used from ordinary terminals. This approach is basically distance-independent but not cheap, since users pay not only for the remote computer use but also for the network charges. Furthermore, every remote system has its own idiosyncrasies to be learned.

The latest development represents a synthesis of these two approaches—network connection of local mail systems. Two rapidly growing networks, BITNET and MAILNET, provide mainframe-to-mainframe connections, so users can take advantage of their familiar local systems to correspond with remote colleagues. BITNET now links over 50 universities via leased phone lines, and MAILNET connects over 20 colleges and universities using a central relay computer that makes several calls per day to each institution. Inter-Network gateways connect BITNET and MAILNET to each other and to CSNET (over 100 computer science departments and researchd labs), JNT-MAIL (200 institutions in the UK), and CCNet (4 additional universities).

In addition to the current status and likely future developments of electronic mail networks, the presentation covered the advantages, disadvantages, and behavioral implications of this novel form of communication, and several case studies from university research, instruction, and administration.

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7. ACCREDITATION OF PROFESSIONAL MASTER'S DEGREE PROGRAMS

Presiding: Paul A. Albrecht, *Executive Vice President, Claremont University Center, and Executive Dean, Claremont Graduate School*
Presenters: William Laidlaw, *Vice President, American Assembly of Collegiate Schools of Business*
Accreditation of Professional Master's Programs—Business Administration
*Frances Horvath, *Dean, School of Allied Health Professions, St. Louis University*
Accreditation of Allied Health Programs

Paul A. Albrecht

Quality is close to the center of the priority concerns of graduate deans. We do quite a lot about quality and fret more about what still remains to be done and about how difficult it is to make significant progress. The graduate establishment has spent much time and effort on program review, for example—far more than has been characteristic of undergraduate education. In combination with the Graduate Record Examinations Board, we have developed an ongoing systematic capability for self-assessment in a context of eventual national norms of Ph.D. and master's programs.

But quality concerns and activities are shared with others. One of the principal other activities is accreditation—whether regional entire-institution or specialized programmatic accreditation. It is somewhat surprising that as a group we have concerned ourselves so little with accreditation. Individually, of course, we are much involved on our own campuses and some of us serve on accreditation teams and/or commissions. But collectively, we haven't been much involved. Perhaps my memory is faulty, but I don't recall a panel on accreditation at the national annual meeting in many years.

This panel was planned to begin to rectify our collective oversight and to explore, with a specific emphasis on what in the trade is called "specialized accreditation," the degree to which graduate administrators might join forces more in promoting quality, and to look at areas in which there may be problems or misunderstanding. We have an able panel representing specialized master's degree accreditation in the fields of business, engineering, and allied health.

In addition to asking them to comment on anything they regard as relevant, we have asked them to consider some issues as the following:

- The role and methods of specialized accreditation and their rationale.
- Relationships to regional institutional accreditation.
- Possible similarities or differences with internally-generated program review.
- Responses to the charge sometimes voiced that by making demands for their

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*Abstract given here. Copy of complete presentation available upon request from CGS Washington office.

programs with the threat of sanctions or accreditation jeopardy, internal resource allocations may be distorted.

- Trends they see in specialized accreditation.

William Laidlaw

Business Administration Accreditation

We in business administration accreditation start with twin premises—one of accountability and assurance of quality for the various constituencies served by our programs, and the second of program improvement or enhancement of the quality of programs over time. The assurance that we try to provide includes a comparable access for students to the elements and resources which support a quality program. Undergraduate and graduate programs have to be accredited at exactly the same time. We do that so that resources can't be shifted from one program to another if they get accreditation at different times. We do that so the accreditation recognition granted at one level cannot be confused to apply to two levels. We also do that so that a school contemplating starting a masters program will do so only after it fully understands and makes a commitment in advance to meet the minimum threshold requirements needed in order to offer a quality program.

We deal with several criteria in administering the accreditation standards in business administration. Fundamentally they are a combination of qualitative and quantitative standards. The quantitative criteria do not dominate in the accreditation process which we administer.

Several major elements are looked at.

1) The objectives of the program must be stated clearly and be consistent with the standards of high quality included in our accreditation criteria.
2) The admission and retention standards for students should compare favorably to the standards of the entire university seeking students with a reasonable chance of succeeding in that program. The standards include reasonable, multi-dimensional admission criteria fairly applied with no hard and fast cut-off scores used on predictors like standardized tests.
3) The faculty is an element that receives a major amount of attention—not only good faculty, but even more importantly, a process to be in place for managing faculty resources. Professional involvement, instructional performance, scholarly productivity, and community service are all looked at. For the graduate faculty, higher qualifications than for undergraduate faculty, and a greater involvement in research activity in order to be able to deliver appropriately higher level programs of instruction are all considered.
4) Of concern to us is curriculum; there are general elements that should be included in what we call the "Common Body of Knowledge" in management, and breadth of curriculum aimed at the general competence for overall management.

5) Finally, we look at the resources the institution applies to the program, such things as library, computers, and financial resources.

Out of those five general elements, the three that really get the most weight are admission, faculty, and curriculum, and they are the three that are dominant in our review.

Specialized Accreditation

We are often asked about the relationship of specialized accrediation to regional accrediation and to other internal program reviews. Most specialized accrediting agencies of which I am aware do require regional accreditation as a prerequisite to vouch for the quality of general educational offerings of the entire university. And specialized accreditation really should build on and complement the other internal reviews that take place. That process emphasizes the consulting nature of accreditation and the interest in program improvement. It also points out the interest in joint accreditation reviews in order to reduce the burden of accreditation on institutions. The Council on Postsecondary Accreditation (COPA), with a grant from the Fund for the Improvement of Postsecondary Education, is exploring the development of a common data base across accrediting agencies which, if it is possible to do, would encourage joint reviews and would further reduce the data-gathering burden.

Specialized accreditation, of course, is a very delicate balancing act between the interests of the particular programs reviewed and the interests of the entire university. In our case, we feel very strongly that the arts and sciences part of the university is a most important element which provides the educational framework for whatever higher education or work endeavor takes place thereafter. Our standards require that schools have no less than 40 percent of the work in arts and sciences.

The arts and science part of the educational program has to remain strong and I think we're going to see the pendulum swing back from the professional programs to arts/science, liberal arts education in the long run. Rather than to the liberal arts programs students are flocking more to professional education, and especially to engineering and business. In fact, the faculty resources in many universities have not been reallocated sufficiently promptly to recognize that shift so that there are serious faculty shortages in both engineering and in business, and in other places as well. At the current rate of production of PhDs, if the business school enrollments tend to stay high, it will take more than six years to reach the point where the supply for business PhDs equals the demand.

Trends

What are some of the future trends? It's going to be harder, in my judgment, for master's programs in our field to get accredited in the future. Our standards have changed so that both undergraduate and master's program have to be accredited simultaneously. We will probably see only a trickle of schools that have both undergraduate and masters programs added to our list of accredited institutions in the next 10 to 15 years. The reason for that is the tremendous amount of resources it takes to be able to put together a program that meets even the minimum threshhold accreditation standard.

Secondly we're going to see even more emphasis on the consultation role of accreditation in the future. We're now talking about some major changes that would, among other things, set an advance agenda for a review with the administrators of a business program before we visit there. We would still expect basic compliance of the minimum threshhold standards, but, for schools that have been accredited a long time, we would focus much more on how we can assist in program development. That may even go beyond degree programs and may get into continuing education programs and other kinds of non-credit activities in which schools engage.

A third trend I think is going to take place, at least in our field, is a greater emphasis on what we're calling skills and personal characteristics; on the measurement and the development through educational programs of those skills and personal characteristics such as the ability to analyze complex problems, the ability to plan and organize, leadership capacity, the ability to delegate and control, and communication skills, both written and oral. It's a whole new trend in program enhancement, both at the undergraduate and the master's level.

A fourth trend is assessment of outcomes. Through instruments we are currently developing, schools will be able to conduct their own self-assessments and to measure performance against their objectives. This is going to lead, in turn, to greater experimentation, greater flexibility of offerings, new courses and new delivery systems, even to the schools' abilities to offer new programs, where in the past they have sometimes felt constrained by accreditation standards.

A fifth trend is emphasis on lifelong learning. We are proposing to our Board in two weeks that a major study be conducted to see who can best teach what kind of information, what should be learned when, what should be learned where, what can be learned and what can be taught.

A final trend to which I would point is cross-fertilization between the graduate schools and the professional schools. I expect to see much more in the future of faculty crossing departmental lines to teach, and much more interdisciplinary research. I would like to see more emphasis on societal problems and less on traditional disciplinary areas than has been true in the past. And I'd like to see more faculty from different disciplines bringing their expertise to bear jointly on the solutions to those problems.

Summary

Obviously higher education is a maturing industry at the present time. There are many new markets to be developed which are not necessarily going to be served by the traditional delivery systems on which we've relied in the past. The former emphasis on meeting threshhold standards of accrediting agencies is going to wane and give way to an emphasis on program improvement, or the consultation mode that I talked about. As knowledge proliferates and becomes even more specialized, the interest in and the need for specialized accreditation will be strengthened. But the task, I believe, will be undertaken in conjunction with, and not at the expense of, the arts and science part of the university.

Frances L. Horvath

Addressing the issue of allied health accreditation is complicated by the fact that one must discuss 35 professions with 38 sets of accreditation standards administered by 7 agencies, one of which has 16 committees. There are, however, some commonalities: allied health accreditation focuses on "entry-level" education, which is defined by the achievement of those minimum professional competencies needed for board certification and entry into practice.

Allied health accreditation which regardless of the agency involved, always includes the self-study process and report, an on-site visit and subsequent committee review of findings, is conducted for three principal reasons. First, we must verify, particularly during the on-site visit, the amount and relative quality of supervised clinical practice provided and the extent to which students' competencies are monitored and evaluated. Certifying exams taken by graduates usually measure only the cognitive skills acquired, and do not assess the program's efficacy in teaching the motor skills essential to our many "hands-on" professions. Second, the application of uniform accreditation standards allows us to achieve some consistency in the essential curriculum content, and therefore in the entry-level competencies of the graduates nationwide. Third, we accredit to improve program quality by requiring both internal (the self-study) and external (site-visitors and review committees) assessment.

The fact that these lofty objectives are not always achieved does not detract from their legitimacy. From a more practical perspective, however, program accreditation is also sought because graduates' eligibility for certification and practice is dependent upon their having graduated from an accredited program.

One of the major problems in the accreditation process is its tendency to interfere with institutional prerogatives. In allied health, the more exclusively the process is controlled by the professions, the greater the interference, and sometimes the institution becomes an adversary rather than an advocate of its own program. Currently, the most hotly debated example of potential infringement on institutional rights is the American Physical Therapy Association's mandate that by 1990 all entry-level programs must be "post-baccalaureate", and that by 1985 programs seeking accreditation must at least have made acceptable plans for the transition, or subsequent consultation from the APTA will be withheld. Inasmuch as the APTA is the only accrediting agency in the field, and eligibility for licensure and practice is dependent upon graduation from an accredited program, allied health administrators are caught in an untenable position. Graduate schools are about to witness a real struggle as a miscellany of graduate programs and degrees in physical therapy develop, ranging from "professional" master's degrees, traditional master's degrees (either "entry-level" masters, or "advanced" masters in specialized areas) to the doctorate.

Among other problems in allied health education are the failure to distinguish between the self-study process and the report thereof, with the writing of the report often becoming a substitute for conducting the process, the duplication by programmatic agencies of the work of regional accrediting bodies, and the steady stream of site visitors who are too frequently poorly prepared and inconsistent in their interpretation of accreditation standards.

The solutions to most of these problems do not lie in legal actions, since the pattern of adjudication in the past suggests that courts usually confine their deliberations to relatively narrow issues involving due process. Rather, acknowledging and respecting the rights of both the institutions and the professions in the establishment of criteria and processes, using effectively the self-study process, and improving the quality of site visitors are positive steps in making accreditation fulfill its purpose in an acceptable manner. Accreditation should be a benefit we share, rather than a burden we bear.

8. CGS/GREB AGENDA FOR MINORITY GRADUATE EDUCATION

Presiding: Anne S. Pruitt, *The Ohio State University*
Presenters: Donald Deskins, *Associate Dean, University of Michigan*
Jules B. LaPidus, *Graduate Dean, The Ohio State University*
*Martha Romero, *Project Director, WICHE*
Luther Williams, *Vice President for Academic Affairs and Dean of the System Graduate School, University of Colorado*

Anne S. Pruitt

This session was planned by the CGS Committee on Minority Graduate Education. Members who are present are Johnetta Davis from Howard University, Betty Greathouse from Arizona State, Clara Adams from Morgan State University, Norman Durham from Oklahoma State; also Luther Williams is the Board Liaison person on this Committee. Representing Jaime Rodriguez, Dean at the University of California, Irvine, who was unable to be with us today is a member of his staff, Mark Warner.

This session will focus on the CGS Survey, reproduced and placed in your packets, the genesis of which dates back to July, 1982. At that time all of education was faced with the threat of federal cutbacks in financial support and we were concerned about the impact this would have on graduate education of minorities. We thought it would be important to take stock of this impact at that time. The survey was mailed in November, 1982 just prior to the CGS meeting, with a cover letter from the president, Mike Pelczar. The purpose of this panel is to respond to the first draft of the analysis—to give implications of the results that are recorded in the document that you have. Let me just highlight the Executive Summary. The goal of the research was to determine the status of special assistance programs designed specifically for minority graduate students at universities represented by predominantly white graduate schools that are members of the Council of Graduate Schools in the United States. These programs were categorized as financial assistance, recruitment and admissions, academic assistance, and job placement. The survey also included some special questions that we were asked to insert by the staff of the National Commission on Student Financial Assistance; I worked with Dr. Robert Snyder from that staff. Some of those results have been used in testimony before the National Commission on Student Financial Assistance. In summary, 69% of the institutions that award graduate degrees offer university-wide financial assistance programs designed specifically for minority graduate students; 67% offer special minority recruitment and admission programs; 29% have academic assistance in tutoring programs and 37% have job placement services. Major research universities reported more special programs than non-research universities, public more than private, and with the exception of academic assistance and job placement, doctorate more than master's only institutions. Schools of law and medicine have the most special assistance programs among the fields of graduate and professional study. In job placement programs the leaders were law and veterinary medicine and in financial aid programs engineering tied with medicine. Despite declines in federal and state financial support for all students, institutions have managed to increase the proportion of the awards going to minority students. No clear pattern emerged with respect to which university offices manage these programs nor where they were located. Most successful of these programs in recruiting and retaining minorities was that of financial assistance. Minorities include American Indians, Asian Americans, blacks and Hispanics. You will note in the report that four years earlier, 1978, the American Council on Education conducted a similar survey and we have compared the results of this survey with those of the ACE study. First of all, let me say there has been no discussion of this report. This is the first discussion of this report which has not been discussed by either the Committee or to my knowledge the CGS Board. We are here for your input, your comment, particularly with respect to implications, and if we have time, for critical analysis. We want to know whether we've generated a sense of what the current situation is, what the implications are, and what issues are raised by these results.

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*Abstract given here. Copy of complete presentation available upon request from CGS Washington office.

Donald Deskins

There is no doubt that the committee was genuinely motivated to collect data regarding 1) recruitment and admissions, 2) financial resource availability, 3) academic support services and 4) job placement activities for its potential utility to change the declining trend in minority enrollment at the nation's graduate and professional schools over the past decade. It is a well known fact that enrollment of minorities in those institutions at the top of the American educational hierarchy reached its zenith in the mid-1970s and has since undergone a steady decline. I am convinced that knowledge of this trend stimulated the committee's interest and commitment to elicit some useful data on a uniform basis to halt this downward trend.

The data in Table 1 on the ethnic composition of the enrollment generated are interesting but were not used in reporting the survey results on recruitment and admissions and the other three major categories addressed in the report. It would have been more appropriate to report the information by the four minority groups included because these groups are quite different in the degree to which they were represented in graduate school enrollment relative to their proportional representation in the nation's overall population. It is apparent that graduate black enrollment has precipitously declined since the mid 1970s, an obvious trend whether national or institutional specific data are being examined. Nor has Native American enrollment significantly increased over the decade; this can probably be attributed to small numbers of Native Americans in our population and consequently significant increases in the future should not be expected. Until recently Hispanic enrollment had increased slightly and subsequently, leveled off. Of the four minority groups only Asian Americans have experienced increasing enrollment during the past ten-year period. Aggregate statistics on minority enrollment in both professional and graduate school show only a slight decline. The fact that black enrollment has signficantly decreased while Asian American enrollment has significantly increased during this period are concealed in the aggregate enrollment numbers which have not changed that much.

It is vital that the results of any minority graduate education survey be stratified by minority group because there are significant differences in the degree of group representation. Not only should survey research along these lines be stratified by minority group but the nature of under and over representation should be considered because the levels of participation, the problems and recommendations for resolution differ from one group to the other. It is highly likely that well meaning institutional minority recruitment initiatives have been unified and consequently unknowingly subverted by economic cost effective consideration that have resulted in a single minority recruitment strategy when group specification is required.

According to the report, questionnaires were sent to 353 institutions. Only 143 responded. Of this number only 121 returned complete and useful information upon which the results of this report were based. Based upon this disappointingly low response, I therefore suggest that results cannot be viewed as being conclusive.

The results of the survey are generally reported by two institutional categories, 1) major research institutions, and 2) non-research institutions which I will refer to as Ph.D.-granting and non Ph.D. granting institutions. When reviewing the response rates by these categories the Ph.D.-granting institutions had the higher rate of response with 59% of these institutions returning completed questionnaires. While the response rate for the non Ph.D. granting institutions, which account for the larger portion of CGS membership was extremely low. These response rates by institutional categories have to be taken into account when considering the study's findings.

I suggest that the conclusions reached would be much easier to accept with a greater degree of confidence if the report were more focused on the results for the Ph.D.-granting institutions where nearly a sixty percent response was received.

In the study it is postulated that there is a positive linkage between increased minority enrollment and the availability of increased federal financial support suggesting that decrease in federal support will result in further decrease in enrollment. However, the survey results do not clearly support this relationship. Since the overall input of financial support for minority students is reported to have increased at the Ph.D.-granting institutions and support for minority students at those institutions has not thus far been adversely affected by diminished federal funding due to the infusion of institutional and private funding, I suggest that these institutions will continue to support minority student funding with internal resources or private contributions at a reasonable level if federal funds continue to decrease in the future.

Even though the survey data are weaker when considering the results reported for non Ph.D.-granting institutions there is an indicator that this set of institutions is more dependent on federal funds for minority financial aid and auxiliary support programs.

Although limited by the low response rates, the topics addressed in the report are timely and the issues are important. However, it should be viewed as being no more than a pilot study and the results preliminary at best. The results of this effort are nevertheless very useful as the basis on which to redesign and conduct a more complete survey.

Jules B. LaPidus

One thing that strikes me is the clear differentiation between professional schools and graduate schools and I think that is not really surprising. In many ways it lends some strength to the idea of not coupling graduate education and professional education every time the graduate community wishes to make a point of some kind or other. In a number of different ways professional schools are really quite different from graduate schools.

In the summary Anne has mentioned that schools of law and medicine have the most special assistance programs, law and veterinary medicine the most in job placement, and engineering and medicine the most in financial aid programs. In engineering we are probably talking about professional engineering. I was interested in the fact that the study appears to show that among the public research-oriented universities there has not been a decline in the amount of institutional money going to financial support for minorities at a time when external funds have been declining. I think that's very positive, particularly in view of concerns relative to changes in affirmative action policies in the United States and how that would affect this sort of activity at the local level.

I also was interested in two aspects of the special programs: one is the job placement figure. The figure here speaks specifically to job placement for minority students and I'd be interested in seeing the relationship of that to job placement activities for any graduate students. It has been my experience, particularly in doctoral programs, that job placement tends to occur primarily through major professors. I think that's something that might be explored. Secondly, in terms of the academic assistance tutoring programs, if we are making the point as has been made most forcefully recently by Don in his book about the availability of qualified minority students holding the baccalaureate degree, certainly in graduate schools one would have to raise questions about tutoring and academic support services, narrowly defined, because in my experience, it's not a very common experience to run tutoring programs at the graduate level for anyone.

There is an aspect that I think is extremely important and that I can only refer to as some sort of socialization process. I spoke a moment ago about the job placement activity being related very much in doctoral programs to the relationship with major professors; one of the key questions, I think, in the whole idea of minority students being successful in graduate school is the socialization, if you will, of minority students into the regular faculty adviser-student relationship. I think it's a mistake to pull minority students out of that and set up separate programs on the academic side, because that immediately raises the question of what's happening to the major professor—what's happening to the department? But educational programs, if you will, need to be instituted for faculty as well as for students. To improve the mainstreaming—as another way of looking at it—of minority students—whatever minority group we're talking about—into history, chemistry, physics or whatever one wants to talk about, requires student and faculty interaction and communication. I would like to see much more information about this academic assistance in tutoring program service because I'm not sure I understand it. I think it may be individually defined at each institution. It's a catch-all category and I think it's a very important one. It will differ drastically, I would suspect, for professional schools and graduate schools. When we talk about professional schools, we usually mean the common ones—law, vet med, etc.,—but I wonder if we can also fold professional master's programs, or practice-oriented master's programs, into that in terms of a general point of view—MBA programs, MPA, MSW, MEDd, so on and so forth. There is an aura about those programs in terms of the way that students are advised, which tends to be in groups rather than singly, that differs significantly from the relationship that builds up between adviser and student in research-oriented programs and we may have to dig much more deeply into those kinds of relationships to get a firm idea of what's going on.

Martha Romero

Initial reactions to the minority graduate education survey responses include the following observations:

1. It is significant that schools could not respond to the study because they do not keep the data requested. There is an implication in terms of commitment and priority that needs to be addressed in any interpretation of this study.
2. Some graduate schools responded that they are waiting for the results of this report in order to decide upon the activities they should initiate. Does one interpret the statement to mean:
    a. What must we do to keep pace, or,
    b. How little can we do and get by, or,
    c. We do not have staff with analytic skills needed to gather data and to develop programs based on that data. Perhaps it is a matter of not assigning a priority to analysis of the needs of minority graduate students.

3. Funding for minority graduate education still exists primarily on a soft money basis.
4. Recruitment activity patterns concentrate almost exclusively on distributing brochures and letters. My experience is that brochures and letters tend to be impersonal, to describe schools and programs as numbers and to tell minority students very little about their chances of being accepted, very little about how they as students will fit into the university community and very little about how they might pay for their graduate school experience.

Questions not addressed in this study but which are of interested include:

1. What degree of success, or perception of success, do assistance programs enjoy depending on where in the institution they are housed?
2. Does the job placement question refer to post graduation placement or to job placement while students are in school? Statistics tell us that over 50% of minority graduate students are also employed.

Demographics which form a backdrop against which this study must be viewed include:

1. From 1950 to 1980 population of the U.S. increased by less than 50%; Hispanic population increased by 265%.
2. Median age of all American citizens is currently 30 years. For the white population it is 31; for Asians, 28.6; for American Indians, 27; for Blacks, 24; and for Hispanics 22 years.
3. 81% of master's degrees awarded in 1980–81 went to majority population citizens; 5.8% to Blacks; 2.1% to Hispanics; 2.1% to Asians; and .3% to American Indians. Non-resident aliens received 7.4% of this country's master's degrees. A curious phenomenon in this country is to collapse those figures to show that 17.4% of degrees awarded went to minorities (whether citizen or not).
4. Similarly, 78.8% of doctorates granted went to whites; 3.8% to Blacks; 2.6% to Asians; 1.4% to Hispanics; and .3 to American Indians. Non-resident aliens received 11.2% of degrees awarded in U.S.—3.1% more than total for American minorities.
5. If faculty and administrative staff serve as role models and as interpreters of the way of life of a university community, the numbers of faculty and administrative positions become important. Again, 91% of university faculty are white; 4.4 are Black; 2.9 are Asian; 1.5 are Hispanic; and .2 are American Indian. Administrative staff percentages are almost identical.

Given these figures and projections of the changing demographics of American society, the message is clear. Graduate schools are facing major changes.

1. Graduate schools can change by getting smaller and continuing to serve young, white mostly male students as they have traditionally done.
2. Or graduate schools can change by enlarging their service population to include a wider age range of mostly white students.
3. Or graduate schools can change to meet the educational needs of the emerging young population—minority students.

4. Graduate schools can also change by addressing the needs of an integrated, diverse population which includes older students, minority students, female students as well as the smaller pool of students traditionally served by American graduate schools. Change is inevitable.

Luther Williams

The previous speakers have adequately addressed the salient aspects of the survey. I now desire to make reference to those observations and then make essentially summary comments.

I would suggest that one of the implications of the survey results bears more directly on the non-contemporary state of graduate education as an enterprise (e.g., recruitment, admission, the matriculation process, financial aids, etc.) as contrasted with that of professional schools. As Dr. LaPidus has observed, the relative success of professional schools is owing, in part, to periodic assessments of medical and dental schools as well as the supportive roles of relevant professional associations. In contrast, I suggest that the responses obtained in this survey are diagnostic of the perpetuation of a set of practices and activities under the rubric of graduate education that bear little relationship to present circumstances. For example, most reasonable persons would agree that the three predominant pools of prospective graduate students are: (1) "older individuals", (2) minority students and (3) international students. In assessing the current activities of most graduate schools in late 1983 the interesting question is the extent to which there's reasonable parrallelism between the activities of the graduate school and those three student populations. What one observes is at some level less than laudatory, but probably not terribly different from what would obtain if the question were asked with regard to any graduate student. For example, in the instance of minority students, financial support mechanisms have been maintained yet enrollments have declined. The critical issue is therefore the utility of the support, not the maintenance of x-level of dollars. The matter of utility bears on the positive correlation between level of financial commitments and (a) the application and admission rates, (b) the enrollment decision, (c) and, more importantly, the progress and quality of the matriculation process leading to completion of degree programs. Beyond these matters, the existence of effective academic support mechanisms is a significant issue. I submit that despite the existence of various programs at many different institutions over the past decades, there is no comprehensive understanding of the ultimately successful model of academic assistance for minority graduate students.

In summary, I suggest that this survey has evidenced two important findings or rather suggestions. First, the minority issue has been surfaced in the context of a graduate education enterprise in need of rehabilitation. Second, the interesting findings of this survey should be regarded as preliminary, and as such, become the subject of more judicious examination.

BREAK TIME IS...

"MEETING" TIME

Business Meeting

Presiding: Wimberly C. Royster, *Chairman, CGS Board of Directors and Vice Chancellor and Graduate Dean, University of Kentucky*
President's Report: Michael J. Pelczar, Jr., *President, The Council of Graduate Schools in the U.S.*
Report on CGS Planning Activity: Paul A. Albrecht, *Executive Vice President, Claremont University Center, and Executive Dean, Claremont Graduate School*
Resolutions
Special Resolution Honoring Michael J. Pelczar, Jr.

PRESIDENT'S ANNUAL REPORT

Michael J. Pelczar, Jr.

It is always a pleasure for me to report to you on the activities of your Washington office and to share with you some of the signs of the future as we see them from One Dupont Circle.

I think we can say, with due modesty, that this has been a pretty good year. There are, of course, intermittent periods of frustration—sometimes I feel that a tremendous amount of input is required for a small output. And the agenda gets longer—never shorter! I am reminded of a story told about Sir Winston Churchill, on this subject of things yet to be done. Churchill had just completed a speech to an audience in a hotel ballroom. In the question period that followed, one very proper British lady stood up and chided Mr. Churchill about his drinking habits. "Mr. Churchill," she said indignantly, "if all the Scotch you have consumed were poured into this room, it would fill it halfway to the ceiling!" Churchill, casting his eyes upward into the immense space of the ballroom replied: "Ah, madame! So much yet to do, and so little time in which to do it."

I would like to report in summary fashion, some of the events of 1983:

- Our membership has held relatively steady with some modest growth. Presently, about 380 institutions belong to CGS.
- The Washington staff has increased CGS's representation in some important circles. For example, we are represented on the NCHEMS Board of Directors and the Board of Directors of the National Association of Foreign Student Affairs (NAFSA).
- We have sponsored or co-sponsored several successful meetings since this time last year. These include:
    - The CGS Graduate Deans Workshop in Aspen, Colorado. The 1984 workshop will be held at Boston College, and the 1985 workshop is likely to be in the state of Washington.
    - A one-day conference on *Graduate Education for Practicing Professionals,* which was held in Toronto in conjunction with the 66th annual meeting

of the American Council on Education and the Canadian Association of Colleges and Universities. This meeting was co-sponsored by the Graduate Record Examinations Board (GREB).

- With the GREB we participated in two Graduate Education Forums, one in Philadelphia, the other in San Francisco. This was a new venture.

- We have represented graduate education at numerous Congressional hearings, where we testified or in other ways expressed informed opinions about pending legislation. I asked Thomas Linney to summarize for me our participation in legislative activities in 1983. Among the 44 varied topics on the list he gave me are:

  Science and math education
  NSF budget for FY 1984
  G*POP
  USIA exchange programs
  Foreign language bill
  R & D tax credits and incentives
  Reauthorization of the Higher Education Act of 1965 and the National Graduate Student Fellows provision
  NIH funding for FY 1984
  Student financial aid technical amendments
  Appropriations bills

  Responses to these and many other legislative matters are developed by the staffs of the higher education associations at One Dupont Circle, generally, the American Council on Education (ACE) the Association of American Universities (AAU) National Association of State Universities and Land Grant Colleges (NASULGC), and CGS.

- You will recall that in 1983 you approved the establishment of a category of Sustaining Member in CGS. As of this date we have accepted the following sustaining members:

  Research Corporation of New York
  University Microfilms International
  Educational Testing Service
  Owens-Illinois Corning Glass Co.

  We are presently corresponding with two other likely prospects, a major publisher and a biomedical corporation. We have not had as much help from the membership as we would like on this matter. However, I am aware that the subject is a sensitive one to many. In another place, I will have more to say about it.

- You have heard the Chairman of the Board comment on the CGS planning project. The membership is deeply indebted to Paul Albrecht for the comprehensive planning document being developed under his direction.

- We have an increasing number of visitors from foreign countries who seek information on the organization and administration of graduate education in the U. S. Only last week we were hosts to a group from the Peoples Republic of China. They have expressed an interest in having CGS put together a team of graduate deans to assist them with development of graduate education programs.

- This is the 13th consecutive year that we have collaborated with the GREB in conducting a survey of graduate enrollment. It has become a tradition to announce the results at our annual meeting. (Copies of the full report will be mailed to all CGS deans.) The results of the fall, 1983 survey can be summarized as follows:

GREB / CGS
13th Annual Survey of
Graduate Student Enrollment
Fall, 1983

Overall results

Slow growth in graduate student enrollments.

Specific results

1. Total graduate student enrollment up 1.4%.
2. First time graduate student enrollment up 2.4%.
3. Graduate student applications up 3.8%.
4. Graduate assistantships up 5.8%. Increase in teaching assistantship stipends include:
    - Economics up 5.2%.
    - Electrical engineering up 5.7%.
    - English up 5.6%.
    - Chemistry up 5.3%.
5. Graduate fellowships up 2.9%.
6. Master's degrees down 3.5%.
7. Doctoral degrees up 0.6%.

Method

Questionnaires were sent to 370 CGS deans. Responses were received from 243 schools, a 66% return. (Late returns raised responses to 275 without changing major results.)

So much for a sampling of our activities in 1983. What about the agenda for 1984 and beyond?

We are now preparing a monograph, to be published next spring by Jossey-Bass, on innovations in graduate education. Several of you have already contributed papers to this book. Lewis Solmon of UCLA and I are the co-editors.

The now-famous report of the National Commission on Excellence in Education, *A Nation at Risk*, is just one of about 25 studies issued recently on the condition of education at the primary and secondary levels. Colleges and universities were left in the shadows in the Commission's report. However, the National Institute for Education has recently appointed a study group to review and report on the extensive data about higher education collected by Commission staff. This new NIE panel, chaired by Kenneth R. Mortimer, Professor of Higher Education at Pennsylvania State University, is the first formal extension of the Commission's work. Other members of the panel are Alexander Astin, director of the Higher Education Research Institute at the University of California at Los Angeles; Herman Blake, provost and professor of sociology at Oakes College, University of California, Santa Cruz; Howard R. Bowen, professor of economics and education at Claremont Graduate School; Zelda Gamson, professor, Center for the Study of Higher Education; Harold Hodgkinson, senior fellow, Institute for Educational Leadership; and Barbara Lee, assistant professor, Rutgers University Graduate School of Education.

Another report that is focused specifically upon graduate education is soon to appear. This will come from the Subcommittee on Graduate Education of the National Commission on Student Financial Assistance. John Brademas, former U. S. Representative from Indiana and now president of New York University, chairs this subcommittee. He stated at last October's meeting of the Association of Graduate Schools that the report will address the condition of graduate education.*

Other studies pertinent to our work are soon to come. For example, next Tuesday and Wednesday the Carnegie Foundation for the Advancement of Teaching is holding a colloquium on graduate education at Princeton. The agenda will be centered on three papers: the first is by Professor Pelikan of Yale entitled "Scholarship and Its Survival;" the second is by Dr. Bowen of Princeton concerning the report on graduate education; and the third will deal with the University of Chicago report on graduate education. In the spring of 1984 the National Science Board is planning a two-day conference on the condition of graduate education in the sciences and engineering.

Up until now, at least, the salvos of criticism about education in the United States have been directed at elementary and secondary schools. But as all of these studies suggest, higher education is next. We in the graduate school will have to ask ourselves what we are doing and how well we are doing those tasks for which we have responsibility.

We are aware, of course, of several troublesome areas as well as new opportunities in graduate education. High on the agenda is:

- Financial aid for graduate students and how the reauthorized Higher Education Act will deal with this question.
- The problem of obsolescence of equipment in university laboratories. (This topic surfaced in yesterday's discussions.) Estimates for the cost of modern-

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*The Brademas subcommittee report, *Signs of Trouble and Erosion: A Report on Graduate Education in America*, was issued December 12, 1983.

izing research laboratories range between one and six billion dollars—a large figure even in these times!

- The humanities are another issue. The design of many graduate programs coupled with limited opportunities in academe has discouraged many potential scholars. The Consortium for Institutional Cooperation has just distributed the results of its study, which is entitled "Humanities Ph.D.s and Nonacademic Careers." This timely publication is a guide for faculty advisors. CGS has purchased copies to be sent to all members.
- There is the issue of partnerships. The National Science Board just last week released its study on industry-university partnerships. Many universities are rushing to form high-technology or biotechnology centers with cooperation from business. This phenomenon was discussed by the Washington University group on Wednesday, and Dr. Marshak unveiled a most ambitious plan in his keynote address.
- And then there is international education. Kingman Brewster, former President of Yale University and former U.S. Ambassador to the United Kingdom, speaking to this year's annual meeting of NAFSA distilled the essence of this issue into six words: *"International education is education for survival."*
- Or we could discuss access to graduate education. Are we providing opportunities for all who have the talent and initiative to reach their highest level of educational achievement?

Most if not all of these topics have been on our agenda for the past few years; indeed, several were addressed at this meeting.

We hear, with increasing frequency, that our economic health, our national security, our quality of life, indeed our survival, depend upon more new knowledge. The ways we gain this new knowledge and the ways that we disseminate it to more and more people are among the most important changes occurring in our society. For example, it is commonly said that we are changing from a capital-intensive economy to a brain-intensive economy and from a society based in industry to one based in information.

In recent remarks entitled "The Post-Gutenberg University," Dr. Stephen Mueller, President of Johns Hopkins University, told the American Association for Higher Education that "we are already in an environment for higher education that represents the most drastic change since the founding of the great European universities some eight or nine centuries ago." In the decades to come, Dr. Mueller continued, the university will be serving a new clientele, delivering services in new ways, and reexamining what and how it teaches. Within five years, he warned, the "faculty may not understand how their students are learning. The most serious problem may be a post-Gutenberg university with a pre-Gutenberg faculty."

Five years ago, at our 18th annual meeting, William D. McElroy, former Chancellor of the University of California, San Diego, and former Director of the National Science Foundation, stressed the need for anticipating change in graduate education. He said:

> "Our society—and indeed the world—requires more, not less, of the highest quality people from our graduate schools. To meet this requirement, we will have to change our patterns somewhat, institute some new programs, and take some modest risks. . . . Despite the inertia of our academically conservative faculty and the glacier-like movement of our academic institutions, we will probably make many corrections in course, and a decade from now, one will note considerable differences on the American graduate education scene."

I ask, are we meeting this prediction, considering the rapidity with which new knowledge is developing? Just two weeks ago, David Saxon, Chairman of the Board of the Massachusetts Institute of Technology and former President of the University of California, told the annual meeting of the National Association of State Universities and Land Grant Colleges:

> "The pace today is so rapid in so many fields that the requirements for providing students with a truly fundamental base of knowledge on which they can build for the future constantly change. The pressure, in short, is inexorable for flexibility of academic programs and, even more importantly, for flexibility of people—not least in the faculties and staffs of our own institutions."

Dr. Saxon continued:

> "In the years ahead we will have larger numbers of non-traditional students taught in a greater variety of non-traditional ways. . . Finding the right mechanism for meaningful new educational arrangements will require time and experimentation, but it is imperative that the process begin."

The Fund for the Improvement of Postsecondary Education (FIPSE), now entering its eleventh year of service, is a program of the U. S. Department of Education. Each year several competitions are held for projects that seek to address issues in the improvement of education at the college and university level.

For 1984 FIPSE has added graduate and professional studies to those areas in which proposals are accepted. The Fund is looking for programs that broaden the concept of graduate education, prepare students for careers outside the academic setting, contemplate new partnerships with professional and community organizations, and accommodate new and changing student populations.

Graduate education is central to all education, and so we in the graduate school carry a large responsibility. We must rise to the needs of our times and initiate desirable change within our own institutions and within every sphere of our national life that the graduate school touches. As President Danforth said, the graduate dean must be a catalyst.

Graduate education has faced tough times before and emerged the better for it. The necessary element in every transitional age is the will to respond to vital needs and the leadership for creative change. What is different in our day is that there are no models from the past that will serve; our imagination and ingenuity must provide the answers.

At the first meeting of the Council of Graduate Schools, in 1961, Bernard Berelson, author of *Graduate Education in the United States*, urged the graduate community to drop its defensiveness about its great mission. And he continued:

> "The world is in a heavy state these years, and by all accounts it will continue to be so. As the home of scientific, literary, historical, and philosophical scholarship, the graduate school is in a central position.... A great deal of the intellectual leadership in this country today has come out of the graduate school and even more will do so in the future...."

That was 21 years ago. There are, thus, remarkable similarities between those days and ours. The greatest is the need, now as then, for imagination, application and flexibility before the forces of the future in graduate education. Berelson might still remind us, as would Ralph Waldo Emerson, that every age is a good one if we but know what to do with it.

Constant improvisation is often our theme in the busy CGS office that I described at the beginning of my talk. I want to close with praises for the excellent staff employed there to serve you. Being of the old school, I will comment on "ladies first."

A large number of you know Edna Khalil personally; you have had the pleasure of corresponding with her on various matters and know how responsive and responsible, how knowledgeable and accommodating she is. She edits our publications, arranges our meetings, manages our business affairs, and assumes several other responsibilities. Edna is simply terrific!

We have two secretaries, both of whom are relatively new. They are Lucille Sorensen and Pat Ford. Each has adapted quickly, effectively, and congenially to our office.

Now for the men. Thomas Linney has brought CGS into the "big league" in terms of governmental and association relations. Now, when a statement is prepared by the higher education community on some legislative issue affecting graduate education, the signers of this position paper are ACE, AAU, NASULGC, and CGS. This was not the practice several years ago; we were not included with the presidentially-represented associations. I assure you that this represents a major achievement. Thomas's successes are not without penalty to himself—because of his effectiveness, he is called upon more frequently for various assignments. Among other important positions in the higher education community, Thomas chairs the higher education inter-association group working on reauthorization of Title IX programs, and he is also a member of the National Student Aid Coalition Task Force on Title IV programs.

Our dean-in-residence for 1983-84 is Larry Williams from Eastern Illinois University. Larry is a tremendous asset to the CGS office. Most recently he has worked with Paul Albrecht on the CGS planning project. His talents, his eagerness to be of help, his ability to complete projects—all add up to invaluable assistance.

We have had the extra bonus of having Paul Albrecht work with us during the past six months on the CGS planning document.

I think you will sense that I am very pleased and very proud of the CGS staff. I am!

REPORT ON CGS PLANNING ACTIVITY

Paul A. Albrecht

Summary

This will present a very brief summary of what the survey shows, some interpretation of what is not in the viewpoints of the deans as they appear in the study, and perspectives on the Council of Graduate Schools and the next decade gleaned from the Washington interviews, the Board, the Council staff and the author's reflections on all of these.

As a result of these explorations, the CGS staff and the author did develop at the outset some planning assumptions which have guided the approach to this project. Any planning document should, of course, state these assumptions because some sort of forecast is inevitably a presupposition of a plan. The planning assumptions include the following: there will be at best steady and at worst declining enrollments in traditional academic disciplines at the graduate level during the next decade; it will be fortunate if there are very modest increases in financial support and the graduate endeavor may indeed stay only more or less even; support for research will increase modestly although there will continue to be a fundamental struggle between funding for basic and applied research; a significant shift in career objectives and types of students will continue (with the career shift being the more significant) leading to a change in curricular emphases; more of the cost of graduate education will be passed to students, notably in applied disciplines and programs; the impact of these trends on institutions will be differential depending on their location in regard to metropolitan areas and regional growth and on their patterns of institutional adaptation and innovation; some impact of technology on delivery systems, and even on the curriculum itself, will be felt but the degree is uncertain and difficult to predict. In short, there will be opportunities but graduate schools will continue to swim upstream, with no dearth of problems, in a relatively unfavorable environment overall.

The following is a summary of what appeared to be clear in the responses of the graduate deans and what did not appear to be present. As to what was definitely indicated, one might note the following:

1. A clear recognition that graduate programs and schools would be facing significant financial constraints during the next five years.
2. A strong feeling that the graduate community should articulate the importance, the value, and the needs of graduate education and research to the public.
3. A strong emphasis on governmental relations, including the federal scene, was desired.
4. The graduate community has a quality program at various levels.
5. Most institutions are facing a context in which there will be new clients and students, new careers and curricula, and attendant changes.
6. Individually strong statements were made which suggest the need for the

Council to increase its capability in gathering and disseminating data and information on trends in graduate education and research to its membership and to the public.

7. The Council should do more to make its activities representative of the diversity of its membership.

Not in the deans' purview were also a number of matters which were frequently mentioned by other higher education observers and leaders interviewed in the overall study. It may be instructive to note some of these. This section obviously has some infusion of the author's own opinion:

1. The deans' responses did not exhibit a very long view; most seemed to see the future as an extension of the present and the near past.
2. There was little attention given to the implications of the great differences among member institutions and of the rather elaborate differentiation of function and viewpoint that has developed in the graduate community over the last twenty years.
3. There was some inchoate awareness, some pointed comment, but a general lack of wide recognition of the educational complexity being imposed upon graduate education and research by the shifting emphasis, both among students and in research funding, in the applied direction.
4. Little real attention to the precarious position of the office of the graduate dean in many universities was evident.
5. The complexity of articulation ("making the case for graduate education") and the degree to which graduate administrators as a group have not succeeded in doing that job is insufficiently recognized.
6. While the constraints of the small professional permanent staff size are somewhat noted, the significant limitations imposed by its small size are not sufficiently perceived.
7. There is very little apparent concern in the survey about the impact of technology on the delivery systems or the shape of graduate education.

Recommendations

Here are some recommendations growing out of the planning project for the consideration of the Board, staff and membership.

1. The Council should mobilize its membership on a crash basis for two tasks: 1. the creation of a network to assist Washington staff in the area of federal relations, and 2. the development of a plan for getting on with the articulation of the graduate cause.
2. The Council should develop a program for increasing the involvement of the membership in its activities which realistically recognizes the diversity of that membership and is more representative.
3. The Council should move immediately to increase its permanent professional staff by one person who should be a data specialist to assist the Council in developing a capability in the data and information area.

4. CGS should develop as soon as possible, preferably with a completion time of 18 months, some analytical organizational studies by special commissions in the following four areas: 1) mechanisms for improving quality actually available to CGS, 2) issues involved in the interaction between disciplinary and applied education, 3) probable impacts on curriculum and delivery systems of technology and 4) organizational issues of the office of graduate dean.

Other recommendations could be made but these seem centrally directed to the heart of the need of graduate organizations to gather their resources to increase the awareness and commitment of the public, and of persons of authority and influence, to the role of graduate education and research in the present and future well-being of our society. Many of the same mechanisms can be used as well to increase the internal effectiveness of graduate activities. A certain passivity among the direct leaders of graduate education and research needs to be overcome in favor or a more proactive stance to the benefit of all.

Resolutions

RESOLUTION NO. 1

Resolution in Decision Making in the Federal Funding for Research Facilities

WHEREAS the United States has evolved an admirable but fragile system of awarding federal funds for research, and,

WHEREAS this system is dependent upon fair and open competition responding to federal agency guidelines, and peer review judgment by experts in the scientific area to be studied, and,

WHEREAS this method of peer review has governed most federal programs in support of scientific facilities when and where such programs exist, and,

WHEREAS most federal programs to support construction and renovation of research facilities have been ended through a shifting of federal priorities, and,

WHEREAS in the absence of such programs colleges and universities are suffering a gradual increasing erosion in their ability to support state-of-the-art research in all scientific fields, and,

WHEREAS CGS member institutions share with many other institutions and individuals a commitment to advancing the quality of the nation's research effort. The vitality of this effort is closely linked to the soundness of decisions made about scientific research by public bodies.

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools supports the recently adopted AAU Statement on Decision Making in federal funding for research facilities. CGS urges the national administration and members of Congress to support the practice of awarding funds for research or facilities on the basis of scientific merit judged in an objective manner. CGS would further urge support for new spending authorities to support research facilities to keep our nation's investment in academic research facilities from becoming out of date.

RESOLUTION NO. 2

Resolution in Support of the University Research Capacity Restoration Act

WHEREAS our nation has made a large and long term investment in academic and research facilities on our nation's campuses, and,

WHEREAS a variety of studies have shown that this nation's capacity to conduct state-of-the-art research at colleges and universities has been diminishing over the years due to a lack of consistent federal support, and,

WHEREAS the investments needed to maintain these facilities are in human capital as well as building and equipment capital investments, and, WHEREAS the federal government has over a period of nearly 200 years provided leadership and investments in university research facilities as part of the federal responsibility to provide national defense and provide for the general welfare of the nation, and,

WHEREAS increased funding is again necessary to support our nation's research capacity through greater investments in research facilities and instrumentation, research fellowships, research initiatives and competitions, through federal agency initiatives that will allow these investments to take place in mission agencies of the federal government, and,

WHEREAS increases in authorizing and appropriations legislation will be sought to support these initiatives in multiple agencies of the federal government.

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools indicate its support for the bi-partisan initiative and leadership of Senators Danforth (R-Mo) and Eagleton (D-Mo) and their 13 Senate co-sponsors, and endorse the University Research Capacity Restoration Act of 1983 also known as the Danforth-Eagleton initiative. CGS endorses and supports the general concept and indicates its willingness to be helpful to the many specific efforts which will implement this concept.

RESOLUTION NO. 3

Resolution in Support of Expanded Graduate Student Support During Reauthorization of the Higher Education Act

WHEREAS the role of graduate education and graduate student support has been of a relatively small scale during previous deliberations over the Higher Education Act of 1965, subsequent reauthorizations, and,

WHEREAS graduate programs are currently aided primarily by the loan programs included within the Higher Education Act, and,

WHEREAS the last reauthorization granted a slight expansion of Title IX programs included the creation of a new National Graduate Fellows Program that has never received funding, and,

WHEREAS the generous support of minorities in Title IX programs promised in previous reauthorizations has never materialized in actual appropriations and as a consequence minority enrollment in graduate and professional programs is once again heading downward, and,

WHEREAS financial aid programs have proved themselves over the last fifteen years to have broken the barrier of financial access to higher education, freeing individuals, colleges, and universities involved to pursue educational goals that serve the larger interests of our nation.

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools sets forth the following goals and objectives for reauthorization.

1. Maintaining authorization and securing annual appropriations for programs to aid minority student access to graduate aid professional education. This means keeping parts A and B of Title IX and funding them on an annual

basis to provide support for identification, recruitment, and assistance programs designed to increase minority access to graduate education. These programs should carry stipends and cost of education allowances at least equivalent to other federal fellowship programs.

2. Maintain an authorization and securing actual appropriations for the Title IX Part C National Graduate Fellows Program, to create and operate a restored program of fellowship support for advanced degrees in the arts, humanities and social sciences, to retain a generation of new scholars in these currently neglected areas for the future needs of the nation.
3. Increase funding for those Title IV campus based programs; the National Direct Student Loan Program and the College Work Study Program which support some limited number of graduate students in graduate programs. Authorizations should be increased and funding levels should also increase to reflect unmet need among graduate students who are eligible for these programs.
4. New mechanisms to increase access and opportunity for graduate education should be developed. Reports of the National Commission on Student Financial Assistance suggest that levels of borrowing to support graduate programs are increasing. The burden of loans currently required to complete study for advanced degrees is operating to reduce the attractiveness of graduate study. CGS is prepared to support the creation of new programs to expand current financial aid programs to the graduate level. Such programs would help support able students who are deterred by the cost of graduate study. Any new programs should increase support from the federal government in the form of grants for educational expenses, with campus based decision making concerning admission of students and distribution of awards.
5. Seek to advance the concept of financial independence upon entrance into programs of graduate study. Current law provides that dependent undergraduates must be independent of parental support for one year before achieving financial independence. This acts as a hardship to those students proceeding directly from undergraduate study to a graduate program, and establishes a presumption of continued dependence for students who are in every other way independent adults. Upon entrance to graduate study, students should be allowed to make independent determinations of financial need that do not reflect undergraduate arrangements.

Together, this package of programs should advance the opportunity of our nation to produce the talent necessary for future generations.

RESOLUTION NO. 4

Resolution in Support of CGS Involvement in Strengthening our Nation's Schools

WHEREAS recent reports and recommendations from national commissions and other organizations have focused attention on problems in our nation's schools, and,

WHEREAS high quality education is central to our national economy, security and well being, and,

WHEREAS improving education in the United States is dependent upon a renewed and coordinated effort involving all segments of society, and,

WHEREAS quality graduate education demands a strong foundation of basic education.

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools in the U.S. reiterates its commitment to excellence in education at all levels; and,

BE IT FURTHER RESOLVED that the Deans of the Council of Graduate Schools in the U.S. in cooperation with the Deans of Schools of Education proceed promptly to develop initiatives directed to the improvement of quality of teaching at the elementary and secondary levels and that this same group exert their resources and influence at the local, state and national levels in developing and implementing fundamental educational improvement in our schools.

RESOLUTION NO. 5

Resolution Concerning Animal Research Initiatives

WHEREAS the Congress of the United States has seen in recent years numerous attempts to impose new legal requirements on the uses of animals in research, and,

WHEREAS often these attempts are made themselves on the basis of belief rather than established fact, and,

WHEREAS insufficient information exists on the important questions of the uses of animals in research in the U.S., and,

WHEREAS any possible new policies in this area should be developed on the basis of comprehensive knowledge of actual current practices and expertise in the field, and,

WHEREAS several suggestions for such comprehensive new studies have been made by academic and congressional groups, and,

WHEREAS support of such studies before new attempts to make effective and appropriate policy decisions in this area are in the best interest of the scientific and academic communities responsible for research, and,

WHEREAS restrictions on the use of animals in research may seriously retard the development of new knowledge concerning the physiology, chemistry, pharmacology and pathology of a variety of disease states, the study of behavior, and the study of the aging process and thereby be detrimental to the health and welfare of all citizens, and,

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools in the U.S. recommends that before any new legislation concerning animal research is advanced in either the House or the Senate, adequate research on current practices be conducted to inform new policy decisions in this area. Any such study should be as comprehensive as that proposed in the first session of the 98th Congress by Senators Hatch and Kennedy in S-964. S-964 or a similar bill would direct the National Academy of Sciences to conduct an inquiry into the numerous unanswered questions raised in recent debates over the uses of animals in research, and about existing administration and research practices that govern current practice. CGS commends Senators Hatch and Kennedy for their leadership in this area.

RESOLUTION NO. 6

Resolution in Support of International Education

WHEREAS the economic, political, and intellectual well-being of the United States is increasingly related to our ability to interact intelligently, effectively and incisively with the rest of the world, and,

WHEREAS the lack of foreign language ability and international competence on the part of the American people has been documented in several recent studies, and,

WHEREAS graduate education, by its very nature, involves international communities of scholars devoted to the pursuit of knowledge, and,

WHEREAS international educational exchange programs provide one of the best vehicles for expanding international competence and awareness through advanced study and research, and,

WHEREAS the amount of financial support for international educational exchange programs has declined dramatically during the past two decades, and,

WHEREAS the Commission on International Education of the American Council on Education has recently published a report entitled "What We Don't Know Can Hurt Us: The Shortfall in International Competence," that points out the critical importance of international competence and awareness to the United States, and,

WHEREAS graduate schools are focal points at most universities for international exchange programs and interdisciplinary graduate programs involving language and area studies.

NOW THEREFORE BE IT RESOLVED that the Council of Graduate Schools in the U.S. supports the Commission on International Education of the American Council on Education in urging increased emphasis on and awareness of the international dimensions of graduate education, and, BE IT FURTHER RESOLVED that the Council of Graduate Schools in the U.S. urges increased federal, state, and private support for international educational exchange programs in order to enhance the international competence of the people of the United States.

REMARKS OF DEAN DONALD J. WHITE, BOSTON COLLEGE, IN INTRODUCING RESOLUTION HONORING DR. MICHAEL J. PELCZAR, JR.

I ask that all of you join me in saluting our President of these last five and one half years, Dr. Michael J. Pelczar, Jr. While it is true as Emerson observed over a century ago, that "The reward of a thing well done is to have done it", still, I believe that we owe it to Mike and ourselves to acknowledge his tireless, peerless leadership. If there is anyone here who knows firsthand that "The gates of excellence are surrounded by a sea of sweat"—HIS—that person is Mike Pelczar. For our benefit he has given his all—and in the truly loving way that is characteristic of leadership by example in which he verily has excelled.

RESOLUTION OFFERED BY DONALD J. WHITE, BOSTON COLLEGE, AND ADOPTED BY ACCLAMATION AT THE 23RD ANNUAL MEETING, THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES, ST. LOUIS, MISSOURI

RESOLVED, That the Council of Graduate Schools in the United States, in meeting assembled, gratefully acknowledges, with admiration and affection, the peerless leadership and warm colleagueship of its retiring President, Dr. Michael J. Pelczar, Jr. Our prayer is that he and his loving wife, Merna, whose photography and grace have enriched our lives, shall enjoy to the fullest the new adventures upon which they are bound to embark, and shall join us on many future occasions.

AD MULTOS ANNOS!

THE COUNCIL OF GRADUATE SCHOOLS IN THE UNITED STATES

Financial Report for Years Ended December 31, 1983 and 1982

We have engaged Fox & Company, nationally recognized certified public accountants, 1220 19th Street, N.W., Washington, D.C. 20036, to perform the annual audit of The Council of Graduate Schools in the United States. Summarized financial data is provided below. This recapitulation is not a complete presentation of the report of Fox & Company and does not contain all the data and informative disclosures required by generally accepted accounting principles.

BALANCE SHEETS

ASSETS

	December 31, 1983	*December 31,* 1982
Current assets	$513,922	$507,310
Fixed assets, less accumulated depreciation	4,976	5,916
Endowment fund investments	18,012	18,012
	$536,910	$531,238

LIABILITIES AND FUND BALANCES

	1983	1982
Current liabilities	$138,694	$138,093
Fund balances:		
Unrestricted:		
General operating fund	380,204	375,133
Restricted		
Endowment fund	18,012	18,012
	398,216	393,145
	$536,910	$531,238

STATEMENTS OF REVENUE, EXPENSES AND CHANGES IN FUND BALANCES

	Year ended December 31, 1983	*Year ended December 31,* 1982
Revenue	$442,793	$435,433
Expenses		
Personnel	217,251	182,760
Meetings and travel	140,218	151,003
Office expenses	77,067	182,760
Gustave O. Arlt Award expenses	3,186	18
	437,722	416,514
Excess revenues over expenses	5,071	18,919
Fund balances at beginning of year	393,145	374,226
Fund balances at end of year	$398,216	$393,145

BUSINESS MEETING

The President's Report

Michael J. Pelczar, Jr., CGS President

"Graduate education is central to all education . . . we must rise to the needs of our times and initiate desirable change within our own institutions and within every sphere of our national life . . ."

Planning for CGS

cgs
The Council of Graduate Schools in the United States

Paul A. Albrecht, Claremont Graduate School, *presents planning document to membership.*

Passing the Gavel

Jules B. LaPidus, The Ohio State University, *incoming Board Chairman, receives gavel from 1982 Chairman Wimberly C. Royster, University of Kentucky.*

Concurrent Sessions

Thursday, December 1, 1983, 3:45 p.m.

10. CENTRALIZED RESEARCH FACILITIES AND ADMINISTRATION

Presiding: Daniel J. Zaffarano, *Iowa State University*
Presenters: Thomas Lyttle, *Manager, Research Instrument Service, Chemistry Department, Iowa State University*
William T. Oosterhuis, *Program Director, Instrumentation for Materials Research, National Science Foundation*

William T. Oosterhuis

A few comments were made about the needs for major research instrumentation at universities, about alternative ways for addressing these needs, and some of the issues involved in operating these facilities were discussed. Instrumentation and facilities provided through five different modes in the NSF's Division of Materials Research were used as examples:

1. *National User Facilities* are so expensive that only one or a few can be supported in the U.S., some on university campuses. They are set up to provide a broad scientific community across the U.S. with a unique service—such as a synchrotron radiation facility. The establishment of a National User Facility generally requires a broad consensus of the scientific community—perhaps through a study by the National Academy of Sciences. The operating costs for National User Facilities are supported by some federal agency.
2. *Regional Instrumentation Facilities* were established by a special initiative at 15 universities to provide a broad community of scientists with access to modern state-of-the-art instrumentation, such as electron microscopes or NMR facilities. The operating costs are partially supported by NSF and in part by use charges collected from the users.
3. *Central Facilities* are provided and operated through 14 Materials Research Laboratories which are set up to serve the Materials Research community on a campus. Shared use of these facilities brings greater efficiency in operation. Several different facilities (such as crystal growing, x-ray analysis, or electron microscopy) may be provided in support of MRL research. The operations of these facilities are supported in large part by use charges with some part from the MRL.
4. *Major Group Instrumentation Awards* in which several investigators pool their efforts in order to establish a costly facility are increasingly common.

Again, shared use is expected and the operations costs are borne largely by use charges, or supported by university support.

5. *Major Equipment Awards for Individuals* are provided from equipment programs. The operating costs are usually provided through the individual's research support.

Use charges are considered a legitimate expense, and provision for them should be made in an individual's research support. Cost sharing by the university is expected for the capital costs of 3, 4 and 5. The practice is different at different universities and in different disciplines. Issues concerning the acquisition of major computer facilities and the competition with private sector testing laboratories were discussed.

11. CGS PLANS FOR THE FUTURE: DISCUSSION OF CGS PLANNING REPORT

(See Summary under Business Meeting)

12. LIBERAL STUDIES MASTER'S DEGREE PROGRAMS FOR TEACHERS AND BUSINESS

Presiding: William H. Maehl, Jr., *University of Oklahoma*
Presenters: Robert Williams, *Dean, University College, Washington University*

Robert Williams

In recent years universities have begun making a virtue of necessity by designing programs for the adult student who has a professional career and a college degree. On occasion corporate and academic resources may even be creatively combined to produce interdisciplinary programs in which the learning process is two-way, sharing the experience of older students and the knowledge of faculty. Since 1980 Washington University has launched two programs intended to utilize existing faculty resources in new ways: first, a Master of Liberal Arts Program designed for a broad audience; second, an International Affairs Program designed to improve overseas business operations by understanding foreign business cultures.

The Master of Liberal Arts program, now in its fourth year, has drawn more than one hundred diverse adults students of high quality who take interdisciplinary courses with regular Arts and Sciences faculty at night and on weekends. The degree is awarded by the graduate school, and the program is run by University College, the evening division. Faculty are paid on an overload basis, and have offered courses on Japanese Drama, Nuclear Power, Ethics and Genetic Engineering, Dante's Florence, Vienna 1900, and World War II, among many other topics. Courses are offered under four broad categories: Ideas and Inquiry, Creative Imagination, Science and Human Values, and Historical Understanding. Students may also pursue regular daytime graduate courses and independent study. At least 12 of 30 units must be in the core colloquia; a thesis is optional.

MLA students include mailmen, social workers, teachers, lawyers, doctors, executives, and company presidents. They range from 25 to 75 in age, with 85% between 25 and 55. Twenty-seven percent have a graduate or professional degree. Most are avid readers, and some compare most favorably with traditional graduate students. A byproduct of the program is that faculty have discovered a new kind of quality graduate student, and MLA courses have found their way into the regular curriculum.

The International Affairs Program began in January 1984 with 17 students in a core seminar on international issues. The program has a faculty coordinator, and an advisory board of corporate affiliate representatives from local St. Louis companies. Businessmen appear in the program as students, advisory board members, and instructors—in some cases, as all three. The 15-unit advanced certificate requires the core seminar and a final group research project; foreign language study is encouraged, but not required. Additional courses cover international trade and finance, political risk in overseas business operations, Latin American business culture, and East Asian Management. In addition to a credit curriculum, there are short courses and workshops designed as meeting grounds for the St. Louis international business community.

Washington University's experience has been that such programs utilize regular faculty wherever possible, but also local professional adjunct instructors. They should have tuition rates below those of the graduate school, and should be administered through a continuing education division. They should be tailored to a community need that can be met by creative restructuring of existing faculty resources. Adult graduate programs can provide new students for the faculty, new income for the university, new ideas for the curriculum, and better relations with the community.

Plenary Session IV

Friday, December 2, 1983, 9:00 a.m.

Presiding: Jules B. LaPidus, The Ohio State University
Speaker: Congressman Paul Simon, *Chairman, House Postsecondary Education Subcommittee*

Paul Simon

I am here to suggest that what happens at the federal level in the next twelve months in higher education is extremely important to all of you who are here, and it is extremely important to the nation. We will, at least on the House side, be moving to reauthorize the Higher Education Act. The question can legitimately be asked "Since we do not have to reauthorize until 1985, why reauthorize in 1984?" There are two very practical reasons for my moving ahead. One is the possibility that Ronald Reagan will be the president in 1985. Even as a Democrat, I think that I have to recognize that possibility. If that is the case, the question arises: is the President of the United States more likely to sign a good reauthorization bill prior to the election or after the election? I come to the conclusion that 1984 might be a pretty good year to move ahead. The second reason is one that I am not sure that the higher education community understands yet.

The Supreme Court's decision on legislative veto in *Chadaha vs. INS*, is an extremely important decision. I happen to think that in theory the court's decision is a sound decision. But in the field of higher education, it means this; if the Department of Education is given a broad mandate in the law—if an administration by drafting a regulation wants to almost gut the law—it can do that without any restraint by the Congress. Thus, we are going to have to spell out in greater detail, more legislative specifications to guide the administration of programs. We don't want to take a chance on what can happen.

What do I seek in the way of reauthorization? What I seek is, first of all, an improvement in education generally. I cannot join those who believe you can build a better and finer America by cutting back on educational opportunity, and so that is kind of a base, not only in higher education but in everything that I do in the field of education. Second, I am looking for simplification. Our student aid programs and programs to assist colleges are frankly much too complicated. When I talk to a group of college presidents, and start talking about student aid programs, their eyes just seem to glaze over. If that is true for college presidents, it is true for my colleagues in Congress--most of whom don't understand all of the programs. How can a high school counselor in an inner-city school in East St. Louis or a rural school in an area like mine down in southern Illinois possibly follow what is going on and really provide assistance and encouragement to students as he or she might want to? The third thing is access. Obviously, we have to maintain access and improve access. The fourth is to take a look at quality, also. What can we do without having the heavy hand of the federal government inflicted in your programs—what can we do to improve quality in higher education?

I think one of the disservices the current administration has rendered to the nation in the field of education is that when they suggested that we ought to be cutting back on Pell Grants and Guaranteed Student Loans (GSL) and everything else, all of a sudden we became defensive. We started fighting for the *status quo*. In fact, there is no such thing as *status quo*—you are either moving ahead or you are slipping back. Institutions, deans, presidents and others should have been dreaming and having some kind of a vision of where we ought to go and what we ought to do as a nation. Instead, we are holding down the bastion fighting for *status quo*. One of the questions that we have to face as we look at reauthorization is do we just try to hold down the bastion, tinker a little bit, make some modest improvements, or do we dream a little bit? Do we dream about what we ought to do, where we ought to go, and my firm belief is that we ought to dream. We ought to hold forth to the nation a direction that we can and should go. What are our problems and maybe we will go.

Graduate Education

Does the United States, with one-third of the world's economy, support graduate education adequately—is there enough scientific research and other areas of active support? I think we have to come to the conclusion that it does not. Our problems, as I sense them and from the perspective of an outsider are these (it is always easy when you are not in the field; everyone out there knows how to run Congress better than the members of Congress and all of us who are not graduate deans know how to run your schools much better than you do). One problem is quality faculty. You have not experienced the problems as dramatically or as measurably yet, as far as I can tell, as we have in elementary and secondary education, and they hit some areas more than others, engineering being an example. But it is a problem that I sense is seeping into graduate education with other important measures of quality such as: adequate facilities and equipment, library support, and a loss of talented students. I think that is not a healthy trend. And, finally, there are too few women and minorities in the field of graduate education. If you combine women and minorities in the United States population, they represent 60%—a little better than 60%—of the brain power of the nation. Obviously, nowhere near 60% of that brain power is being utilized in graduate education as it ought to be.

Now, where do we go on reauthorization? Let me touch on this briefly and then I will toss this open for questions.

First, on assistance to students, and here I am going to focus on the undergraduate level because, obviously, there is a tie-in here. I think we have to improve the Pell Grant program and I personally am going to push toward making it an entitlement so that we can move to less dependence on loans and greater reliance on grants. We are graduating students with a level of indebtedness that is discouraging to them and I think results in some things in our society that are not good. That is true across the board if students pile up huge debts as undergraduates, 1) are they going to take the time to go into graduate school, borrow more money and go into more indebtedness? and 2) what are they going to do when they do go into graduate school? By federal policies we make both individual and public policy choices that influence skills needed in our society. Let me give you an example: A married medical student with $50,000 debt (not a high debt for a medical student), must devote 42% of discretionary income for loan repayment, assuming average income. Now that graduate student in medicine has a choice of serving an inner-city area with great needs or a rural poor area of great need or a place where you can get an adequate income. Where would you go? The answer is fairly obvious, I am afraid. Where is the need of our society? Again, the answer is fairly obvious.

I think what we have done in graduate education in the way of imposing loans on people and perhaps not imposing obligations on people is in part responsible for that. The debt problem is also a particularly severe problem for women and minorities. The expectation of income, I regret to say, is generally less for women. It is generally less for minorities and that means a great reluctance to assume debt, particularly for people coming from families that are not accustomed to heavy debt. If you can come from a family with $50,000 of annual income, to have a debt of $20,000 doesn't seem like a great debt. If you come from a family with $10,000 annual income then it is a different picture and I believe we are discouraging much of the potential of this country. Obviously, federal policies shift what is studied.

Assistance to Students

I think in the graduate field, in general, we have to move toward making the Pell Grant an entitlement program. I also want to examine the possibility of extending the Pell Grant program to include the first year of graduate study. We are going to have to take a close look at the cost factor to see whether this is a possibility. Expansion of the grant programs generally, the G*POP program, the National Graduate Fellow Programs, some form of simplification of the campus-based loans and grants. There are other things that need doing. Your campuses also need encouragement to use campus-based programs for graduate education a little more than is now being done. Perhaps modest expansion of the annual limits on GSLs. And I want to make it clear, I don't want to do that in isolation. I think we need to expand the loan limits of GSLs but I think it has to be combined with grant increases. Loan consolidation—and here let me say

I have twice passed a loan consolidation bill, only to have loan consolidation not pass in the Senate. I am not going to pass any more bills in the House unless the Senate passes one. Otherwise, I am just going to hold off on loan consolidation until reauthorization of the Higher Education Act. I regret saying that, but I don't see any point in wasting additional time on that. The SALLIE MAE loan consolidation program as of right now, is dead. That is not good news for higher education—not good news for many of the students in graduate schools particularly. And, finally, in the area of assistance to students, there is need for expansion of the college work study program to include graduate student participation. I think that we certainly ought to find ways to make this program available to more graduate students.

Assistance to Institutions

The second general category is aid to schools themselves. We are taking a look at a variety of things. We are thinking about some type of matching endowment program. We have passed a bill to modify Title III so that it can help some of the struggling schools and institutions, particularly some of the traditionally black institutions and some other institutions that have a very, very meager financial base, to encourage them in efforts in the area of endowment. I don't know whether the President has signed it or not, but I put a provision in the Tribally Controlled Community College Assistance Act for endowment to assist in development. These schools again have a very, very weak financial base. I hope they can improve their financial base and in the process improve the quality of what they are offering, but some kind of endowment provision is likely to be in the bill. In the area of equipment, we may look at a little increase in Title VII. But, frankly, I think you are going to have to look at the National Science Foundation and other sources for (laughter) problems in this area. If we load this reauthorization bill down with too much, it is simply not going to pass. A third area is support for libraries. One of the things that clearly has happened, as we cut back on federal assistance to students, is that institutions said we are going to have to get those students there; and so they provided assistance for students, and two things suffered in the process 1) faculty pay and 2) libraries. Libraries look the same when you walk past them, but we are suffering qualitatively and this is not good. Next, and this is one of the things that concerns me a great deal, is the international dimension in education. Graduate schools are very much a part of this. A declining percentage of faculty members in our universities are teaching and studying abroad and that has to be bad news for the country as well as bad news for your institutions. It does not make sense that this nation today is piling up more and more nuclear weapons and at the same time spending less and less to understand other countries. That has to change. I am not suggesting that the reauthorizing of the Higher Education Act is in and of itself going to do it. I am suggesting to let us use every tool that is available. You use the tools on your campus, but this is one tool that I think is available and we ought to use it.

Finally, John Brademas, President of New York University, has headed the Subcommittee on Graduate Education of the National Commission on Student Financial Assistance. The Commission's report will be released on December 12. I have had a chance to read the rough draft of that report and I think it is basically a good report. We are also going to be holding hearings after the first of the year on graduate education as well as in other areas. At the end of February I want to introduce a bill, and at this point I am eager for your ideas, things that perhaps none of us have thought about. We are a small group, the Subcommittee, and cannot have the accumulated knowledge in this room, for example. What are some things that we ought to do to help your schools, to help our society to go in the direction that we ought to go? We are eager for your ideas. Nothing will be set in concrete even after I introduce the bill, but it will be more difficult to change after a bill is introduced. Finally, let me just add that if I were to say that I would like to speak to a group that has more to do with the future of this country than any other group—maybe if I spoke to the House and Senate combined it would be more important than this group, I don't know; but other than that exception, and it may be a little provincial on my part to make that exception—I could not pick a group that really has more to do with where we are going than the group assembled here. You are the cutting edge of what we do, what we become as a nation. I cannot thank you enough, but I cannot urge you enough to recognize the importance of what you are doing and to see that the federal government assists you in that task in every possible way.

PLENARY SESSION SPEAKERS

Washington University-Industry Connections

Panel members from Washington University *and* Washington University School of Medicine *(from left): William D. Phillips, Edward L. MacCordy, Joseph M. Davie, David M. Kipnis, and presiding, Luther S. Williams,* University of Colorado.

The Virtues of Necessity: New Connections for the Humanities

O. B. Hardison

The Outlook for Continued Federal Support of Education

CGS
The Council of
Graduate Schools

Paul Simon

Graduate Education in the 1980's

William H. Danforth

The U. S. Economic Outlook: Connections between the Economy, the Federal Budget and Human Resources

Nancy M. Gordon

A Vital Bond: Graduate Education and Technology

Edward A. Knapp

SOME CONCURRENT SESSIONS

Graduate Education and Elementary and Secondary School Teacher Preparation: Graduate Schools Program for Advancing the Quality of Teachers

CGS/GREB Agenda for Minority Graduate Education

The Federal Legislative Process

Graduate School Data Bases

Plenary Session V

Friday, December 2, 1983, 10:45 a.m.

THE VIRTUES OF NECESSITY: NEW CONNECTIONS FOR THE HUMANITIES

Presiding: Thomas E. Jordan, *University of Missouri-St. Louis*
Speaker: O. B. Hardison, *Director, Folger Shakespeare Library, Washington, D.C.*

O. B. Hardison

I will begin today by calling your attention to what I call "the centers phenomenon." It is poorly understood because it has never, so far as I know, been studied in depth. It is not a new phenomenon, since its roots extend back to the Italian and French academies of the Renaissance and to The Royal Society in England. In two senses, however, it can truthfully be called new. In the first place, it has become a significant element in the mix of American higher education only in the last thirty years. And in the second, even though it exists and its effects are obvious, it remains curiously transparent as a phenomenon. The effects are not associated with a general clause.

To get into my subject, I will suggest that American education as normally understood consists of four well-defined layers—primary, secondary, undergraduate, and graduate. The centers phenomenon is a *de facto* fifth layer which is inter-institutional by nature; that is, it occupies the spaces between academic institutions rather than being institutionally based. It is the product of an apparently heterogeneous group of facilities which are usually called centers or institutes, but are also called societies, laboratories, and foundations, and a variety of even more opaque names. These facilities tend to be autonomous or semi-autonomous and to be discipline-oriented. Their typical clients are members of graduate faculties and graduate students, but they often serve research specialists from government, business, and the professions.

The centers phenomenon began with the creation of individual centers and institutes. These were usually created by wealthy patrons or by academic or professional groups. One of the earliest American centers is the American Antiquarian Society in Worcester, Massachusetts, which began as the library of a learned society but has become the major American center for the study of the history of colonial America. The most famous American center is the Princeton Institute for Advanced Study, which is known primarily for its support of research in physics but also supports work in art, history, literature, and the behavioral sciences.

Other well-known examples are the Sloan-Kettering Institute, Woods Hole Oceanographic Laboratory, the Bell Telephone Laboratories, the Brookings Institution, the Woodrow Wilson Center of the Smithsonian Institution, the Huntington Library, the National Humanities Center, the Aspen Institute, and Dumbarton Oaks. Within the last two decades, the rate of creation of centers has risen sharply because of government subsidies for certain types of advanced study, principally scientific and medical. The NSF, for example, has created no less than fourteen regional solid-state physics labs in the last fourteen years, and solid-state physics is only one of several specialties funded by that agency.

Before the second World War there were so few centers that they could be ignored in any assessment of the general shape of American education. Today there are probably thousands of them. They are essential resources for graduate faculties throughout the country, and they are extending their services to teaching as well as research faculty, to high school teachers, and to the professional and general public.

As they have multiplied, they have ceased to be educational luxuries and have become necessities. Collectively, they provide unique opportunities for research and peer interaction among specialists, and they are increasingly being used to support activities on a cooperative basis that institutions can no longer support individually or that would be impossible at a single institution because of the rigidities of the graduate school format.

In spite of the size and importance of the centers phenomenon, it has received very little formal attention. So far as I know, no effort has been made to study centers collectively, and I am aware of only one effort—titled *A Guide to Humanities Centers in the United States* and compiled by Dr. Lydia Bronte—to survey a single group of centers in detail, although I would be quite surprised if similar studies do not exist for medicine and the hard sciences.

The explanation for the neglect is that each center tends to think of itself—and to be thought of by the public—as unique, and to pursue its goals independently of other centers. This is true for centers in the same general discipline area and also for centers in different discipline areas. The Bronte report, for example, lists over 100 humanities centers in the United States, yet these centers have never created a mechanism for discussing common problems and goals. Needless to say, the humanities centers have no communication whatever with centers specializing in the sciences and the social sciences.

In spite of differences in focus, governance, administration, programs, and facilities, most centers share the following general characteristics:

1. Centers exist for the most part outside of normal institutional boundaries. They are inter-institutional by nature.
2. They are autonomous or semi-autonomous in governance and funding.
3. They are intentionally insulated—usually by separate buildings and often by geographical isolation—from day-to-day academic routine.
4. Each is administered by a permanent staff but draws most of its clients from the academic world.

5. Each supports advanced study through fellowship grants and through facilities that vary from study space to specialized library collections to exotic laboratory equipment.
6. Each considers one of its central functions to be encouragement of the free exchange of ideas by all those present through social gatherings, lectures, colloquia, seminars, and publications.
7. Each seeks to preserve maximum flexibility in contrast to graduate schools which are made comparatively inflexible by departments, tenure commitments and degree requirements.

The fact that the major centers share such well-defined common characteristics is not accidental. These characteristics are produced by needs, both academic and social, that are not met by the other layers of the educational establishment. The most obvious need is to provide research opportunities for hard-pressed faculty members. Closely allied is the need to place specialized researchers in peer groups where they can exchange ideas and provide mutual stimulus. This need has increased rapidly with the division and sub-division of disciplines, especially in the sciences. A center can sustain a critical mass of specialists in an esoteric field because it assembles them from all over the country and abroad, whereas a university can normally support no more than one or two specialists in a given field.

In addition to needing peer groups, researchers need specialized resources. In the humanities the resources are generally books. It is therefore not surprising that most humanities centers are organized around unique library collections. In the sciences the need is often for equipment, and many science centers are organized around laboratories. A renaissance scholar, for example, is likely at one or another point in an active career to need a fellowship at the Newberry or Folger Library. For an astronomer, the equivalent to the collection of books at the Folger would be the facilities of a large observatory; for a botanist it might be a collection of specimens at a natural history museum.

Finally, the huge increase over the past twenty years in the cost of advanced research has made it essential for universities to cooperate rather than compete. No single university can support all of the research categories recognized today in the humanities, much less the categories recognized by the sciences. The mammoth program in particle physics operated by the European consortium called CERN, for example, would be unthinkable at a single university.

In the humanities the problem of expensive facilities is compounded by the problem of retrenchment. As enrollments decline in the humanities, graduate positions are eliminated. Many specialized, and some rather general skills are currently jeopardized because there is no longer a base of humanities enrollment to support the faculty members who possess them. Maintaining skills like Neo-Latin, Catalan, medieval German romance, and paleography has become the business of several universities rather than one university.

Cooperation works best on neutral turf. Therefore the most successful centers are autonomous rather than dependent on a parent university. This is why many self-styled "centers" and "institutes" located on university campuses remain brochures in the filing cabinets of over-optimistic faculty members, while centers that are autonomous seem to be able to locate cooperative support in substantial amounts and on a sustaining basis.

If the centers phenomenon is as important to the university community as I believe it to be, it needs to be confronted directly. Centers can no longer be understood as happy but exotic benefactions of wealthy patrons or as random products of the neurosis produced in the federal government by the Cold War or the threat of Japanese industrial competition. They need to be recognized as what I have called "the fifth layer" of American education, and their relation to the institutions forming the other four layers needs to be examined in detail.

A better understanding of the centers phenomenon would be helpful to both the universities and the centers. It would encourage rationalization of what is presently a jumble of diverse programs and policies that often discourage rather than encourage potential clients. It would allow discipline areas to be identified that are not currently being served adequately and under-utilized resources to be fully exploited, and it would help agencies, foundations, and donors make the best possible use of their support dollars. The centers would benefit greatly from this; graduate faculties would benefit even more. If the centers continue to expand their services for college and high-school teachers, these groups would also benefit.

The Rockefeller report on *Humanities Centers in the United States* is, as I have mentioned, limited to one discipline area, and it was out of date on the day it was published. An understanding in depth of the sort I have in mind would require a comprehensive study of the centers phenomenon.

There is no group in the United States with a greater stake in understanding the centers phenomenon than the Council of Graduate Schools, and there is no group better qualified to supervise a study of it. We are talking here of essential services to the individuals who are the first concern of CGS—graduate faculty and graduate students. And we are talking not of spending more money but of spending current dollars more efficiently. The CGS is creating four Commissions to study current issues in graduate education. May I presume on the privilege of an invited outside speaker and suggest that it consider adding a fifth Commission devoted to the centers phenomenon?

Any serious study of the centers phenomenon will have to begin by establishing criteria for differentiating centers from pseudo-centers. It should then list all of the legitimate centers, whatever they may, for historical or other reasons, be called. It should include a profile and vital statistics for each center, and it should attempt to use the information collected to determine whether there are norms for the operation of centers, recognizing that the norms can be only empirical and that many legitimate centers will fail to adhere to them for perfectly valid reasons. It might also attempt a preliminary census of research needs by discipline and geographical area to determine whether certain disciplines and areas are over- or under-served, and it might offer an equally preliminary census of important resources in the form of collections and facilities that are currently under-utilized.

Such a study would immediately encourage self-examination by existing centers. It might also encourage the creation of new centers in under-served disciplines and geographical areas and around under-utilized resources. The long-range result would, I think, be better integration of the fifth layer of American education with the other four layers and more rational deployment of funds, resources, and opportunities for advanced research and continuing education.

Now let me turn to my own special interest, the humanities. Since 1970 the humanities have been in a state of well-publicized and universally recognized decline. Enrollments are dropping, there are more humanities PhDs than can be employed in higher education, and because of the shrinkage of the college-age cohort, there is no relief in sight.

The 1981 Rockefeller Foundation report by Richard Lyman on *The Humanities in America* argues that the humanities are vital to American education. The report has coincided with attempts by many colleges and universities to return to a core curriculum with a strong humanities component. The chances for the long-range success of these efforts are, however, reduced by the increasing specialization of knowledge, which constantly shrinks the amount of time the average student can devote to general education, and by projections like the one issued in November, 1983, by the Bureau of Labor Statistics, which show American labor increasingly divided between a few high-tech and upper management jobs and a large number of service jobs for which college degrees are unnecessary.

Personally, I hope the humanities curriculum can be saved, because I believe it provides a stabilizing center around which the rest of the curriculum can be organized. I feel that it has both an educational and a civic function which no other element in the curriculum offers. However, I am not a prophet. My concern is not what may or may not happen in 1995 but the development of creative responses to the current situation in the humanities, by which I mean preserving the insights into the human condition which the humanities, collectively, provide.

I am concerned specifically with two problems. The first is maintaining specialized knowledge and skills that have traditionally been maintained by the humanities faculties of research universities but are no longer affordable because of declining humanities enrollment.

The second is the problem of faculty members at smaller institutions. As all of you know from direct observation, during the past ten years smaller institutions have been able to hire PhDs with strong research interests. These faculty members usually teach freshman and sophomore courses, and their institutional libraries are inadequate for the work they are trained to do. Without stimulus they become bored and alienated. They know their skills are declining, and, unfortunately, they often convey their disillusionment to their students.

These observations bring me back to the centers phenomenon, and, in particular, to the Folger Library's Institute for Renaissance and Eighteenth Century Studies.

The Folger Institute was created in 1970. It is located physically at the Folger Shakespeare Library in Washington, D.C., and was initially supported by three local universities: American University, George Washington University, and the

University of Maryland. Between 1970 and 1975 the number of cooperating universities grew from three to eight. After 1975 the growth rate accelerated, and today the Institute is supported by twenty-one dues-paying universities ranging from the University of South Carolina at Columbia to Princeton, Rutgers, and Yale in the north. The increase in the growth rate after 1975 is significant. It coincides with the deepening crisis in the humanities. In other words, as the humanities became more hard-pressed at each individual university, the idea of supporting them cooperatively became more attractive.

Several organizational factors have contributed to the success of the Folger Institute, and they may be useful guidelines for similar efforts elsewhere.

First, because the Folger is not a degree-granting institution, its facilities can be shaped specifically to meet the needs of advanced research.

Second, the Folger has a collection of unique importance for renaissance and eighteenth century studies. This collection is essential to advanced research in the period covered. It is also extremely useful for graduate students. Through the Institute many graduate students have their first opportunity to work with original materials.

Third, the Folger Library is "neutral turf." It would have been possible for twenty-one universities to enter into cooperation if the institution being supported had been on the campus of one of the universities. Since the Folger is neutral turf, entering into cooperation did not arouse parochial jealousies.

Fourth, the Institute is financially self-supporting. Its basic services are paid for by membership dues. Since twenty-one universities are members, the dues can be kept low. Up to now, the size and prestige of the Institute has enabled it to obtain considerable additional funding from the National Endowment for the Humanities and private foundations. This funding has permitted enrichment of the basic program and a substantial number of fellowships. However, the Institute is not dependent for its survival on grant funds. Survival depends solely on the value of the Institute's services to its members. If the services are useful the dues will be paid; if they are not the dues will not be paid and the Institute will disappear. This keeps everybody honest.

Fifth and finally, the Institute is a genuinely cooperative venture. It is administered by a Central Committee consisting of a senior Folger staff member, and administrative assistant, and representatives from each of the member universities. All decisions regarding the Institute's budget, its programs, and its selection of junior and senior fellows are made by the Central Committee. To deepen the cooperation between the Institute and its members, each representative on the Central Committee is required to set up an advisory group consisting of an administrator and members of all interested departments on the home campus. This advisory group keeps the Institute representative informed about the needs of the campus and the campus informed about the programs of the Institute. The work of the Central Committee is further reinforced by an annual meeting of administrators from the member universities and by periodic visits by the Central Committee staff to the member campuses.

Turning now to substance, the Institute's basic program consists of six to eight seminars per year. Each seminar is led by a Senior Fellow chosen for international distinction in the field of the seminar. Up to twelve participants can register in each seminar. Typically, about half of the registrants are faculty members and about half are graduate students. A few seminars involving basic skills like paleography and Neo-Latin are repeated. Most, however, are offered only once. This means that the Institute remains flexible. It can emphasize whatever subjects are of interest to the member universities in a given year and can shift emphasis to reflect current trends in scholarship. An effort is made to keep the seminars informal and to accommodate them to the interests of the participants once they have begun meeting. No grades are given, although graduate students from member universities may request letters of evaluation from the Senior Fellow which can later—and at the discretion of the university involved—be converted into grades or some other transcript record.

In addition to seminars, the Institute sponsors a variety of activities to create a stimulating intellectual and social environment. These include lectures, symposia, informal colloquia on current topics, and one or two social events specifically for Institute participants and representatives of member universities.

The growth of the Folger Institute since 1970 suggests that it meets a need, specifically, the need to maintain specialized skills in the humanities during a period of decline. It also has the potential of addressing the second problem that I mentioned earlier, that is, the problem of providing research opportunities and peer-group contact for teachers at small colleges.

The Institute has experimented with summer seminars for these faculty members and has admitted them from time to time to under-registered seminars during the academic year. However, the potential in this area is much greater than the accomplishment. The chief problem is locating fellowship funds for college teachers. In spite of many attempts, the Institute has not been able to persuade either the federal or the private sector to grant these funds. I might add that the situation for high-school teachers is much better. Thanks to William Bennett and Ernie Boyer it looks as though fellowships for high-school teachers will be plentiful for the next several years.

The Institute is currently exploring one other initiative. Its success has created interest outside of the geographical area that it serves. Four years ago the Newberry Library established an institute similar to the Folger's to serve the mid-western region. This institute now has sixteen member universities. An unanticipated but promising result of the Newberry institute is a program involving formal cooperation between the Newberry and the Folger. This alliance has, in turn, created interest in other alliances—for example, with the Huntington Library in California and the American Antiquarian Society in Massachusetts. It may eventually be possible for these four libraries to create the core of a national network of humanities centers which will permit exchanges of senior fellows and seminar participants as well as ideas and information.

The centers which I have considered thus far are similar in focus and general design. There is every reason to believe that their format is adaptable to a great variety of subject areas and resource collections. In fact, a network of centers in the visual arts is already being formed through work by the J. Paul Getty Trust in cooperation with the National Gallery's Center for the Study of Art History and other museums. It would be good to think these efforts are the beginning of an understanding in depth of what centers are and what they do for American education, but that may be too much to hope for.

At any rate, the idea of centers for advanced study in the humanities does not need to be argued. The Folger and Newberry institutes demonstrate that it is practical and beneficial. It is an example of the new connections that the humanities will have to establish if they are to remain vital during the coming decade.

Report of The Council of Graduate Schools—Graduate Record Examinations Board 1983-1984 Survey of Graduate Enrollment

Part I

Bernard V. Khoury
Program Director, GRE
Educational Testing Service
December, 1983

INTRODUCTION

As a result of the difficulty of obtaining accurate information about graduate enrollment, and particularly about trends in enrollment, the GRE Board and the Council of Graduate Schools began thirteen years ago to conduct an annual series of surveys of enrollment of the membership of the Council of Graduate Schools in the United States. The Council membership consists of 370 graduate institutions that grant either the master's or doctorate as the highest degree. The members of the Council grant over 95 percent of the earned doctorates and 80 percent of the master's degrees awarded.

This year's survey, like those of previous years, is divided into two sections, the first of which was distributed in the early fall of 1983 with a request that results be returned no later than October 24. This report provides the results of the first questionnaire mailing. The results of the second questionnaire mailing will be available in the spring of 1984.

In addition to graduate enrollment, this report provides information about applications for graduate study, availability of assistantships and fellowships, graduate degrees awarded, and stipends for teaching assistants.

SUMMARY OF CONCLUSIONS

The data reported in the thirteenth year of this survey series appear quite useful in ascertaining short-term trends in American graduate education.

The overall results of this survey suggest that graduate schools have experienced increases in total enrollments, first time enrollments, numbers of applicants, numbers of assistantships and numbers of fellowships. The numbers of master's degrees awarded decreased, while doctoral degrees remained steady.

Stipends paid to teaching assistants in Economics Departments increased by 5.2% between 1982 and 1983; in Electrical Engineering Departments the reported increase was 5.7%; in English Departments the increase was 5.6%; and in

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*For reference purposes, this report is also issued as "CGS Communicator Special Report, Volume XVII, No. 1, January 1984."

Chemistry Departments stipends increased by 5.3% during the past year; in all these departments, private doctoral programs reported the largest percentage increases.

Specific data and comments on these conclusions are included in the following sections of this report.

SAMPLE DESCRIPTION

Survey questionnaires were sent to each of the 370 graduate schools that are members of CGS. A total of 243 questionnaires were returned for a 66% response rate. Since the primary purpose of the questionnaire is to develop comparative data between 1982 and 1983, responses to questions were included in the analysis only when data were supplied for both years. Thus, the effective response rate per question varies from a high of 65% for the overall sample to a low of 26% for the question concerning stipends for teaching assistants in Electrical Engineering Departments. While this variability is to be expected, it does make comparisons across some questions of restricted value.

Comparisons of Usable Sample and Base Population

	Number of CGS Institutions	*Number of Reporting Institutions*	*% (sample of each population subgroup)*
Total Institutions			
Public	254	161	63%
Private	116	82	71%
Total	370	243	66%
Master's Highest Degree			
Public	81	45	56%
Private	20	15	75%
Subtotal	101	60	59%
Ph.D. Highest Degree			
Public	173	116	67%
Private	96	67	70%
Subtotal	269	183	68%

Care should be exercised in attempting to compare results of this year's survey with published results of last year's survey because 1982 data reported in the current survey may differ from 1982 data reported last year for several reasons. First, although the questions and definitions remain essentially unchanged from last year's survey, the actual number of institutions responding in 1983 were not identical to those responding in 1982. Second, some institutions noted that the data for 1982 they were able to provide for this year's survey were different from, and better than, the 1982 data they provided last year. Despite these limitations, the overall obtained sample (i.e., those submitting usable questionnaires on time) is highly representative of the total CGS population.

Comparison of the sample with the available population is shown on page 84. It should be noted that "Master's Highest Degree" refers, throughout this report, only to those institutions for which the master's degree is, in fact, the highest degree awarded. Data for these institutions do not reflect master's degrees offered by institutions that also offer the doctorate.

The percentages in the table on page 84—and Tables 1 through 12 at the end of this report—show the response rate based on the number of institutions in CGS; for example, the 243 institutions providing responses to this survey represent 66% of the CGS institutions and a 66% response rate is noted. Since the sample of institutions with usable data becomes less complete as the complexity of the questions or the difficulty of obtaining the data increases, the number of institutions providing usable data and the response rate that number represents are given for each question in the data presentation.

In addition, in order to provide an indication of the representativeness of these data, the proportion of total CGS graduate school enrollment the responding institutions represent is provided in a footnote to each table. Based upon the results of this year's survey, combined with additional data from the *Directory of Graduate Programs*, one may estimate the 1983 total graduate school enrollment for CGS members at approximately 830,000. Using this estimate, it is then possible to report that the 243 institutions that responded to this year's survey represent a 66% response rate (based on percentage of CGS institutions) and also accounted for approximately 68% of the 1983 total graduate enrollment at CGS institutions. This latter figure is created by taking the 1983 total enrollment reported this year (566,273) and dividing by 830,000. For subsequent questions, a similar computation has been carried out, removing from the 566,273 the reported total graduate enrollment of each institution that failed to provide a usable response to the question.

RESULTS

The results of the survey are displayed in Tables 1 through 12. The tables present the number of respondents with usable data to each question (i.e., data for both years and for all parts of the question), the percentage that number represents of the total group or of the subgroup, the total number of students reported each year, and the percentage change from 1982 to 1983. Most data are presented by type of control (public and private) and total. In addition, Tables 1 through 4 and Tables 9 through 12 also present data for institutions classified by means of the highest degree awarded. These categories are: Public Master's Highest; Private Master's Highest; Public Doctorate Highest; and Private Doctorate Highest. This additional breakdown was not applied to the other questions because it was not felt to be particularly important or because the differences were too small to affect the overall conclusions.

DISCUSSIONS

Table 1—Total enrollment this year showed a slight overall increase (1.4%). Private master's level schools remained essentially unchanged while public master's institutions showed decreases (2.9%). Increases were reported at private and public doctoral institutions in all size ranges.

Table 2—First-time enrollment increased at private and public doctoral institutions, while decreases were reported at master's level schools. An overall increase (2.4%) is noted across all size ranges.

Table 3—Total applications for admission to graduate schools showed an overall increase (3.8%). The largest increase occurred at public doctoral institutions (4.8%); slight decreases are noted at public master's schools (1.7%).

Table 4—The number of graduate assistants (service required) continued to increase across all institutional types (5.8%). The largest increases in graduate assistants occurred at public institutions.

Table 5—The total number of fellowships (no service required) showed an overall increase (2.9%). A slight decrease (1.7%) was reported at public doctoral institutions.

Table 6—Full- and part-time enrollment remained essentially unchanged at responding institutions.

Table 7—The total number of master's degrees awarded decreased by 3.5%. Percentage declines occurred in all institutional types of all size ranges.

Table 8—The total number of doctoral degrees awarded showed a slight overall increase (0.6%). This reflects increases at public institutions and decreases at private institutions.

Tables 9 through 12—Recent surveys in this series have requested data regarding level of stipends paid to teaching assistants in Economics, English, and Chemistry Departments. This year the same information was also requested for teaching assistants in an Electrical Engineering Department. Any effort to determine the level of financial remuneration to teaching assistants invariably encounters a confusing array of institutional practices with respect to issues such as payment of tuition, variation across departments, variations by experience, taxability, tuition remission and hours of service. In response to continuing interest in such data about stipends and in an effort to make meaningful comparisons, institutions were requested to provide assistantship stipends for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in Departments of English, Economics, Electrical Engineering, and Chemistry. Data received from responding institutions are summarized in Tables 9 through 12.

Economics Departments—An overall increase of 5.2% was reported in stipends paid to teaching assistants in Economics Departments between 1982 and 1983. The largest increase occurred at private doctoral level institutions.

Electrical Engineering Departments—There was an overall increase of 5.7% in stipends paid in Electrical Engineering Departments between 1982 and 1983. The largest increase occurred at private doctoral level institutions.

English Departments—The data indicate that teaching assistant stipends increased by about 5.6% between 1982 and 1983. Doctoral level departments reported greater increases than master's level departments in the stipends paid to teaching assistants.

Chemistry Departments—An overall increase of 5.3% was reported in stipends paid to teaching assistants in Chemistry Departments between 1982 and 1983. The largest increase occurred at private doctoral level institutions.

Because of variations in institutional practices regarding assistantships, caution should be exercised in using the average dollar values reported in the tables. Percentage changes in stipend levels, on the other hand, can reasonably be interpreted to reflect changes made by institutions in their stipends levels.

TABLE 1

Total Graduate School Enrollment by Type of Institution*

	Number	*%***	*1982*	*1983*	*% Change*
Master's Highest					
Public	45	56%	67,337	65,372	2.9% decrease
Private	15	75%	14,087	14,084	0.0%
Subtotal	60	59%	81,424	79,456	2.4% decrease
Ph.D. Highest					
Public	115	66%	358,488	365,146	1.9% increase
Private	66	69%	118,403	121,671	2.8% increase
Subtotal	181	67%	476,891	486,817	2.1% increase
Total Institutions					
Public	160	63%	425,825	430,518	1.1% increase
Private	81	70%	132,490	135,755	2.5% increase
Total	241	65%***	558,315	566,273	1.4% increase

*For purposes of this survey, institutions were asked to include all students considered as registered in the graduate school, including education, engineering, social work, medical, and business programs leading to M.A./M.S. or Ph.D., Ed.D., or other doctorates.

**Percentage figures are the number of institutions responding to this question as a percentage of the number available in the total group. For example, 45 Public Master's Highest Degree institutions responded out of a possible 81 such institutions in the CGS membership for a 56 percent response rate for that group of institutions.

***Based on the computations described under Sample Description on page 82, the 241 institutions responding to this question represent 65 percent of the CGS institutions and accounted for approximately 68 percent of the 1983 total student enrollment at CGS institutions.

TABLE 2

First-Time Graduate Enrollment by Type of Institution

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	40	49%	14,792	14,581	1.4% decrease
Private	13	65%	3,600	3,371	6.4% decrease
Subtotal	53	52%	18,392	17,952	2.4% decrease
Ph.D. Highest					
Public	107	62%	84,396	86,623	2.6% increase
Private	62	65%	30,201	31,551	4.5% increase
Subtotal	169	63%	114,597	118,174	3.1% increase
Total Institutions					
Public	147	58%	99,188	101,204	2.0% increase
Private	75	65%	33,801	34,922	3.3% increase
Total	222	60%*	132,989	136,126	2.4% increase

*Based on the computations described under Sample Description on page 82, the 222 institutions responding to this question represent 60 percent of the CGS institutions and accounted for approximately 52 percent of the 1983 total student enrollment at CGS institutions.

TABLE 3

Number of Applications for Graduate Study

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	37	46%	26,967	26,515	1.7% decrease
Private	12	60%	6,057	6,196	2.3% increase
Subtotal	49	49%	33,024	32,711	0.9% decrease
Ph.D. Highest					
Public	105	61%	282,181	295,662	4.8% increase
Private	62	65%	122,821	126,291	2.8% increase
Subtotal	167	62%	405,002	421,953	4.2% increase
Total Institutions					
Public	142	56%	309,148	322,177	4.2% increase
Private	74	64%	128,878	132,487	2.8% increase
Total	216	58%*	438,026	454,664	3.8% increase

*Based on the computations described under Sample Description on page 82, the 216 institutions responding to this question represent 58 percent of the CGS institutions and accounted for approximately 63 percent of the 1983 total student enrollment at CGS institutions.

TABLE 4

Number of Graduate Assistants (Service Required)

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	44	54%	3,907	4,131	5.7% increase
Private	15	75%	453	471	4.0% increase
Subtotal	59	58%	4,360	4,602	5.6% increase
Ph.D. Highest					
Public	113	55%	83,840	88,869	6.0% increase
Private	61	64%	19,220	20,128	4.7% increase
Subtotal	174	65%	103,060	108,997	5.8% increase
Total Institutions					
Public	157	62%	87,747	93,000	6.0% increase
Private	76	66%	19,673	20,599	4.7% increase
Total	233	63%*	107,420	113,599	5.8% increase

*Based on the computations described under Sample Description on page 82, the 233 institutions responding to this question represent 63 percent of the CGS institutions and accounted for approximately 64 percent of the 1983 total student enrollment at CGS institutions.

TABLE 5

Number of Graduate Fellows (No Service Required)

	Number	*%*	*1982*	*1983*	*% Change*
Public	145	57%	10,525	10,369	1.5% decrease
Private	71	61%	10,254	11,011	7.4% increase
Total	216	58%*	20,779	21,380	2.9% increase

*Based on the computations described under Sample Description on page 82, the 216 institutions responding to this question represent 58 percent of the CGS institutions and accounted for approximately 58 percent of the 1983 total student enrollment at CGS institutions.

TABLE 6

*Full-Time—Part-Time** Total Enrollment*

			1982				1983			
	Number	*%*	*Full-time Number*	*%*	*Part-time Number*	*%*	*Full-time Number*	*%*	*Part-time Number*	*%*
Master's Highest	58	57%	15,663	20%	63,068	80%	16,210	21%	60,658	79%
Ph.D. Highest	172	64%	202,702	46%	240,514	54%	205,124	45%	249,097	55%
Total	230	62%***	218,365	42%	303,582	58%	221,334	42%	309,755	58%

**Institutions were directed to apply their own institutional definitions to "part-time" and "full-time."

***Based on the computations described under Sample Description on page 82, the 230 institutions responding to this question represent 62 percent of the CGS institutions and accounted for approximately 64 percent of the 1983 total student enrollment at CGS institutions.

TABLE 7

Number of Master's Degrees

	Number	*%*	*1981–82*	*1982–83*	*% Change*
Public	161	63%	97,305	93,821	3.6% decrease
Private	81	70%	33,534	32,466	3.2% decrease
Total	242	65%*	130,839	126,287	3.5% decrease

*Based on the computations described under Sample Description on page 82, the 242 institutions responding to this question represent 65 percent of the CGS institutions and accounted for approximately 68 percent of the 1983 total student enrollment at CGS institutions.

TABLE 8

Number of Ph.D. Degrees

	Number	*%*	*1981-82*	*1982-83*	*% Change*
Public	116	67%	14,245	14,430	1.3% increase
Private	67	70%	6,335	6,281	0.9% decrease
Total	183	68%	20,580	20,711	0.6% increase

*Based on the computations described under Sample Description on page 82, the 183 institutions responding to this question represent 68 percent of the CGS doctoral institutions.

TABLE 9

Stipends for Teaching Assistants in Economics Departments

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	27	33%	$3,254	$3,313	1.8% increase
Private	2	10%	$3,370	$3,370	0.0% increase
Subtotal	29	29%	$3,262	$3,317	1.7% increase
Ph.D. Highest					
Public	89	51%	$4,431	$4,630	4.5% increase
Private	34	35%	$4,288	$4,688	9.3% increase
Subtotal	123	46%	$4,392	$4,646	5.8% increase
Total Institutions					
Public	116	46%	$4,157	$4,324	4.0% increase
Private	36	31%	$4,237	$4,615	8.9% increase
Total	152	41%	$4,176	$4,393	5.2% increase

These data are compiled from responses to the following question:

> Approximate net payment made in 9-10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9-10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an Economics Department.

TABLE 10

Stipends for Teaching Assistants in Electrical Engineering Departments

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	11	14%	$3,754	$3,841	2.3% increase
Private	3	15%	$3,260	$3,313	1.6% increase
Subtotal	14	14%	$3,653	$3,730	2.1% increase
Ph.D. Highest					
Public	59	34%	$5,014	$5,293	5.6% increase
Private	23	24%	$4,620	$4,983	7.9% increase
Subtotal	82	30%	$4,903	$5,206	6.2% increase
Total Institutions					
Public	70	28%	$4,816	$5,065	5.2% increase
Private	26	22%	$4,465	$4,790	7.3% increase
Total	96	26%	$4,721	$4,990	5.7% increase

These data are compiled from responses to the following question:

> Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9-10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an Electrical Engineering Department.

TABLE 11

Stipends for Teaching Assistants in English Departments

	Number	%	*1982*	*1983*	*% Change*
Master's Highest					
Public	35	43%	$3,393	$3,484	2.7% increase
Private	8	40%	$3,005	$3,080	2.5% increase
Subtotal	43	43%	$3,320	$3,408	2.6% increase
Ph.D. Highest					
Public	100	58%	$4,479	$4,721	5.4% increase
Private	42	44%	$3,980	$4,317	8.5% increase
Subtotal	142	53%	$4,331	$4,602	6.2% increase
Total Institutions					
Public	135	53%	$4,197	$4,400	4.8% increase
Private	50	43%	$3,824	$4,118	7.7% increase
Total	185	50%	$4,096	$4,324	5.6% increase

These data are compiled from responses to the following question:

> Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in an English Department.

TABLE 12

Stipends for Teaching Assistants in Chemistry Departments

	Number	*%*	*1982*	*1983*	*% Change*
Master's Highest					
Public	30	37%	$3,560	$3,591	0.9% increase
Private	6	30%	$3,177	$3,260	2.6% increase
Subtotal	36	36%	$3,496	$3,536	1.1% increase
Ph.D. Highest					
Public	104	60%	$5,255	$5,514	4.9% increase
Private	47	49%	$5,123	$5,550	8.3% increase
Subtotal	151	56%	$5,214	$5,525	6.0% increase
Total Institutions					
Public	134	53%	$4,876	$5,083	4.3% increase
Private	53	46%	$4,903	$5,290	7.9% increase
Total	187	51%	$4,883	$5,142	5.3% increase

These data are compiled from responses to the following question:

> Approximate net payment made in 9–10 months to a first-time teaching assistant working for 20 hours per week. Since the comparability across graduate schools of assistantship stipends may be influenced by tax status, experience, department, educational level, and tuition waivers, this question requests teaching assistant stipends for a "model" first-time graduate assistant. The reported stipend should be the payment for 9–10 months of effort, excluding any tuition and fees paid by the student or provided by the institution as part of the assistantship package, for a "model" first-time teaching assistant who commits 20 hours per week to assistantship duties in a Chemistry Department.

Officers and Committees—1983

Board of Directors

Wimberly C. Royster, Chairman, University of Kentucky
W. Dexter Whitehead, Past Chairman, University of Virginia
Jules B. LaPidus, Chairman-Elect, The Ohio State University
James B. Bartoo, The Pennsylvania State University (1983)
Mary Ann Carroll, Indiana State University (1983)
Alison P. Casarett, Cornell University (1984)
Dale R. Comstock, Central Washington University (1984)
Robert E. Gordon, University of Notre Dame (1984)
George S. Mumford, Tufts University (1983)
Arnold E. Schwartz, Clemson University (1985)
Reuben W. Smith, University of the Pacific (1985)
Luther S. Williams, University of Colorado (1985)
Michael J. Pelczar, Jr., Ex Officio, Council of Graduate Schools

Executive Committee of the Board of Directors

Wimberly C. Royster, Chairman, University of Kentucky
W. Dexter Whitehead, Past Chairman, University of Virginia
Jules B. LaPidus, Chairman-Elect, The Ohio State University
Mary Ann Carroll, Indiana State University
Alison P. Casarett, Cornell University
Michael J. Pelczar, Jr., Ex Officio, Council of Graduate Schools

Advisory Committee on Gustave O. Arlt Award

James Ballowe, Chairman, Bradley University
Victoria A. Fromkin, University of California, Los Angeles (1983)
Rose-Marie Oster, University of Maryland College Park (1983)
Herwig Zauchenberger, University of Missouri, Kansas City (1984)

MISSION: To monitor guidelines and procedures for the Arlt Award, and to select the individual for this annual award.

Advisory Committee on CGS/University Microfilms International Award

Robert F. Kruh, Chairman, Kansas State University
David P. Roselle, Virginia Polytechnic Institute and State University
Daniel J. Zaffarano, Iowa State University

MISSION: To monitor guidelines and procedures for the CGS/UMI Dissertation Award, and to select the individual for this annual award.

Dissertation and Copyright Committee

J. Knox Jones, Chairman, Texas Tech University
Michael L. Mark, Towson State University (1984)
George S. Mumford, Tufts University (1983)
Carl Riggs, University of South Florida (1983)

Board Liaison: George S. Mumford, Tufts University

MISSION: To be available to address issues pertaining to copyrights, theses and dissertations.

Editorial Committee

Don H. Blount, Chairman, University of Missouri-Columbia
Lawrence Rice, Idaho State University (1983)
Ronald N. Satz, University of Tennessee at Martin (1983)
Vivian A. Vidoli, California State University-Fresno (1983)

Board Liaison: Dale R. Comstock, Central Washington University

MISSION: To review papers and reports prepared by or for the Council of Graduate Schools prior to their publication as official CGS documents for the purpose of ensuring quality and writing clarity.

Committee on Governmental and Association Relations

Samuel F. Conti, Chairman, University of Massachusetts at Amherst
Paul Albrecht, Claremont Graduate School (1985)
Robert E. Gordon, University of Notre Dame (1983)
Robert W. House, Vanderbilt University (1984)
L. Evans Roth, University of Tennessee at Knoxville (1983)
Linda S. Wilson, University of Illinois at Urbana (1983)
Daniel J. Zaffarano, Iowa State University (1984)

Board Liaison: Robert E. Gordon, University of Notre Dame

MISSION: To monitor specific policies and legislation at federal and state levels pertaining to graduate education; to integrate CGS membership expertise on government relations with existing networks of the membership and other associations; to review and catalog the various types of university/industry partnerships.

Committee on Graduate Students

Raymond B. Anderson, Chairman, Columbia University
Raymond P. Lutz, University of Texas—Dallas (1984)
Ellen Mickiewicz, Emory University (1984)
William C. Richardson, University of Washington (1985)
Jud B. Samon, University of Maryland College Park (1984)
Rudolph W. Schulz, The University of Iowa (1983)
Robert T. van Aller, University of Southern Mississippi (1983)

Board Liaison: James B. Bartoo, The Pennsylvania State University

MISSION: At federal and state levels to monitor specific policies and legislation pertaining to graduate students; graduate financial aid issues; graduate issues in recruitment and admissions and to develop appropriate CGS policies as necessary.

Committee on International Graduate Education

Volker Weiss, Chairman, Syracuse University (1984)
Karlene N. Dickey, Stanford University (1984)
Craufurd Goodwin, Duke University (1985)
Christiane Keck, Purdue University (1985)
Neal Lambert, Brigham Young University (1984)
William S. Livingston, University of Texas at Austin (1983)

Board Liaison: Alison P. Casarett, Cornell University

MISSION: To provide an advisory group of CGS members to address policy issues, problems and legislation concerning international graduate education; to develop a position paper which would articulate the significance of international graduate education.

Committee on Membership

Eugene B. Piedmont, Chairman, University of Massachusetts
Byron L. Groesbeck, University of Michigan (1983)
Michael Malone, Montana State University (1984)

Board Liaison: Reuben W. Smith, University of the Pacific

MISSION: To review applications for membership and criteria for membership; to explore member recruitment and possibilities of new categories of membership.

Committee on Minority Graduate Education

Anne S. Pruitt, Chairperson, The Ohio State University
Clara I. Adams, Morgan State University (1983)
Johnetta G. Davis, Howard University (1983)
Norman N. Durham, Oklahoma State University (1983)
Betty Greathouse, Arizona State University (1984)
Jaime Rodriguez, University of California, Irvine (1984)

Board Liaison: Luther S. Williams, Washington University

MISSION: To enhance the opportunities for graduate study by minorities. This includes recruitment, admissions, retention and graduation.

Nominating Committee (1983)

W. Dexter Whitehead, Chairman, University of Virginia
Mary Ann Carroll, Indiana State University
Henry F. Holtzclaw, University of Nebraska—Lincoln
Rose-Marie Oster, University of Maryland College Park
Lawrence H. Rice, Idaho State University

CGS Annual Meeting Program Committee (1983)

Jules P. LaPidus, Chairman, The Ohio State University
Don Blount, University of Missouri—Columbia
Thomas E. Jordan, University of Missouri—St. Louis
Wimberly C. Royster, University of Kentucky
William S. Stauder, St. Louis University
Luther S. Williams, Washington University
Michael J. Pelczar, Jr., Council of Graduate Schools, Ex-Officio

CGS/AGS Committee on Testing

Frances Horowitz, Co-Chairperson, The University of Kansas
Donald J. White, Co-Chairperson, Boston College
Elaine J. Copeland, University of Illinois at Urbana
Henry Holtzclaw, Jr., University of Nebraska—Lincoln
William Matchett, New Mexico State University
Charles Oxnard, University of Southern California
W. Dexter Whitehead, University of Virginia
Bernard Khoury, ETS, Ex-Officio

Board Liaison: W. Dexter Whitehead, University of Virginia

MISSION: To monitor testing legislation and testing issues; to develop recommendations for new procedures and uses of tests.

CGS/AAI Executive Deans Committee (AFGRAD)

Michael J. Pelczar, Jr., Chairman, CGS
Gustave O. Arlt, Marina del Ray, California
Clara I. Adams, Morgan State University
Charles F. Bonser, Bloomington, Indiana
Ernest Q. Campbell, Vanderbilt University
Wade H. Ellis, Ann Arbor, Michigan
George W. Kunze, Texas A&M University
Jules B. LaPidus, The Ohio State University
William H. Macmillan, University of Alabama
John P. Noonan, Kansas State University
Aaron Novick, University of Oregon
Rose-Marie Oster, University of Maryland College Park
Phyllis W. Watts, Friant, California

Board Liaison: Jules B. LaPidus, The Ohio State University

MISSION: To serve in an advisory capacity to the African American Institute in the development of guidelines and in the selection process for the AFGRAD fellowship program.

Committee on Women

Joyce Lawrence, Chairperson, Appalachian State University
Stephen Cheston, Georgetown University (1983)
Hazel Garrison, Hampton Institute (1984)
Barry Markman, Wayne State University (1984)
Shirley Menaker, University of Oregon (1985)
Robert Pawlowski, Texas Woman's University (1984)

Board Liaison: Mary Ann Carroll, Indiana State University

MISSION: To improve the status and representation of women in graduate education.

Task Force on Predominantly Master's Degree-Granting Institutions

Bernard J. Downey, Chairman, Villanova University
James Ballowe, Bradley University
Russell G. Barnekow, Jr., Southwest Missouri State University
Louis G. Pecek, John Carroll University
Albert W. Spruill, North Carolina A&T State University
Leslie M. Thompson, Georgia Southern College
Vivian A. Vidoli, California State University-Fresno

MISSION: To identify special concerns of CGS member institutions offering only master's degrees, and to bring these concerns to the attention of the CGS Board of Directors.

Task Force on Professional Graduate Programs/Degrees

Jussi J. Saukkonen, Chairman, Thomas Jefferson University
Dean Jaros, Northern Illinois University
Lee B. Jones, University of Arizona
X. J. Musacchia, University of Louisville
Lucille S. Mayne, Case Western Reserve University
Richard B. Murray, University of Delaware
Volker Weiss, Syracuse University

Board Liaison: Arnold E. Schwartz, Clemson University

MISSION: To examine the emergence of new professional programs/degrees, and explore how the situation has changed during the last decade.

CGS Representations

Washington Higher Education Committees:

Washington Higher Education Secretariat
Washington Higher Education Group
Association Council for Policy Analysis and Research
American Council on Education-Higher Education Panel
American Council on Education-International Advisory Group
American Council on Education-Legislation Monitoring Group
Research Advisory Group
National Center for Higher Education Personnel Groups

National Committees:

Ad Hoc University Science Committee
Advisory Board, National Center for Higher Education Management Systems
ACE Commission on Educational Credit and Credentials
Institute of International Education-Deans Advisory Committee
International Educational Exchange Liaison Group
Graduate Record Examinations Board
National Liaison Committee (Foreign Student Affairs)
National Research Council-Steering Committee for Research Doctorate Survey
National Student Aid Coalition
Research Universities Network

Regional Associations of Graduate Schools Affiliated with the Council of Graduate Schools in the United States

Conference of Southern Graduate Schools

Executive Committee, 1983-1985

Leon W. Bonner (1984), Alabama A&M University
James H. Fortenberry (1986), Southern University
Hazel J. Garrison (1985), Hampton Institute
David R. Hager (1985), Old Dominion University
Kenneth L. Hoving (1986), University of Oklahoma
Thomas A. Langford (1985), Texas Tech University
Joyce V. Lawrence (1986), Appalachian State University
George M. Reeves (1986), University of South Carolina
Carl D. Riggs (1985), University of South Florida
David S. Sparks (1984), University of Maryland Central Administration
Leslie M. Thompson (1984), Georgia Southern College
Bernard T. Young (1984), Angelo State University

Officers

William H. Macmillan, Past President, University of Alabama
John J. Salley, President, Virginia Commonwealth University
Bob F. Perkins, University of Texas at Arlington
Arnold E. Schwartz, Clemson University

Midwestern Association of Graduate Schools

Executive Committee 1983

Don H. Blount, Chairman, University of Missouri-Columbia
Laurine E. Fitzgerald, Past Chairman, University of Wisconsin-Oshkosh
Leo Solt, Vice Chairman, Indiana University
Vaughnie J. Lindsay, Member-at-Large, Southern Illinois University at Edwardsville
R. F. Kruh, Secretary-Treasurer, Kansas State University

Northeastern Association of Graduate Schools

Officers

George S. Mumford, Past-President, Tufts University
Robert B. Lawson, President, University of Vermont
Charles W. Kim, Member-at-Large, State University of New York at Stony Brook
M. Catherine Butler, Member-at-Large, Brandeis University
Richard B. Murray, Secretary-Treasurer, University of Delaware
Clara I. Adams, President Elect, Morgan State University
Sister Anne L. Clark, Member-at-Large, The College of Saint Rose
Lon W. Weber, Member-at-Large, West Chester State University

Western Association of Graduate Schools

Officers 1983

Vivian A. Vidoli, President, California State University, Fresno
Lee B. Jones, President-Elect, University of Arizona
James L. Clayton, Past-President, University of Utah
Laurence Rice, Secretary-Treasurer, Idaho State University
Giles T. Brown, Member-at-large, California State University, Fullerton
William A. Shack, Member-at-Large, University of California, Berkeley

The Constitution of the Council of Graduate Schools in the United States
(as revised January, 1983)

1. Name

This organization shall be called the Council of Graduate Schools in the United States, hereinafter referred to as the "Council."

2. Purpose

The Council is established to provide graduate schools in the United States with a comprehensive and widely representative body through which to counsel and act together.

Its purpose is the improvement and advancement of graduate education. The purview of the Council includes all matters germane to this purpose. The Council shall act to examine needs, ascertain best practices and procedures, and render assistance as indicated; it may initiate research for the furthering of the purpose. It shall provide a forum for the consideration of problems and their solutions, and in meetings, conferences, and publications shall define needs and seek means of satisfying them in the best interests of graduate education throughout the country. In this function the Council may act in accordance with the needs of the times and particular situations to disseminate to the public, to institutions, to foundations, to the federal, state, and local governments, and other groups whose interest or support is deemed of concern, information relating to the needs of graduate education and the best manner of satisfying them.

In the analysis of graduate education, in the indication of desirable revision and further development, in the representation of needs and all other functions related to effecting its purpose, the Council not only shall be free to act as an initiating body, but it shall assume direct obligation for so doing.

3. Membership

Membership in the Council of Graduate Schools in the United States shall be limited to two categories: Regular and Sustaining. All members shall be aware that the Council is devoted to excellence in graduate education as interpreted by occasional position statements outlining philosophies, policies, and procedures of graduate education. Applicants for membership shall display evidence as to qualifications in a form and as otherwise prescribed by the Council. All applications will be reviewed and evaluated by the Council's Membership Committee, which will bring its recommendations to the Executive Committee for action.

A. Regular Membership. Institutions of higher education in the United States which are significantly engaged in graduate education, research, and scholarship, and the preparation of candidates for advanced degrees are eligible for Regular Membership. Applicant institutions must already have been approved to offer graduate work by the appropriate regional accrediting association, and shall have awarded at least thirty master's degrees or ten doctoral degrees (or combination thereof) in at least three distinct and separate fields or disciplines within the three years immediately prior to the date of application. Applicant institutions must also have a formally organized administrative unit responsible for graduate affairs. Each application for membership shall contain evidence as to these qualifications in a form prescribed in the Bylaws.

B. Sustaining Membership. Both profit and nonprofit organizations such as research institutes; testing and evaluation corporations; philanthropic and charitable organizations; federal, regional and state agencies; public and private research and development corporations; and foreign and multinational organizations are eligible for Sustaining Membership. Such organizations must recognize the value of quality graduate education across a broad range of scholarly, technological and creative endeavors. Through their participation and membership dues they help the Council carry out its central mission and purpose, while gaining access to its resources and activities.

Sustaining Members are encouraged to interact and communicate with Regular Members both informally and formally. Sustaining Members may attend CGS meetings and other sponsored functions; however, they do not have voting rights nor are they eligible to hold elected CGS office.

They are listed in the annual CGS Directory and receive the same generally distributed information and material as Regular Members. Appropriate annual membership dues will be levied by the Council (see Article 11). CGS neither endorses nor represents the interests of Sustaining Members, explicitly or implicitly.

Applications for Sustaining Membership shall be made in a form prescribed by the Bylaws. Each applicant will be considered by the Membership Committee in light of the Purpose (Article 2) of the Council.

4. Voting Power

In all activities of the Council, each regular member institution shall have one vote. More than one representative of any institution may attend the meeting of the Council, but the member's vote shall be cast by the individual designated as the principal representative of the member by the chief administrative officer of the member institution.

5. Officers and Board of Directors

The officers of the Council and the Board of Directors shall be a Chairman, a Chairman-Elect, and the immediate Past Chairman, each serving for a term of one year. In the absence of the Chairman, the Chairman-Elect shall be presiding officer of the Board of Directors and the Council.

There shall be a Board of Directors of twelve voting members, composed of the Chairman, the Chairman-Elect, the Past Chairman and nine members-at-large. Three members-at-large shall be elected annually by the members of the Council in the manner specified in Article 8 for terms of three years which begin immediately after the Annual Meeting.

The Chairman-Elect, chosen by the Board of Directors from its own past or present membership, shall serve in that capacity for one year. The following year, the Chairman-Elect will assume the office of Chairman, and the following year, the office of Past Chairman.

Each voting member of the Board of Directors must be the principal representative of an institutional member of the Council and none may serve for two consecutive full terms.

If the Chairman is unable to continue in office, the Chairman-Elect shall succeed immediately to the Chairmanship, and the Board of Directors shall choose a new Chairman-Elect.

Any vacancy occurring among the membership-at-large of the Board of Directors shall be filled in the manner specified in Article 8. In the interim, the position shall be filled by an appointee of the Board of Directors.

6. *Executive Officers*

The chief executive officer of the Council shall be a President, who shall be a salaried officer, appointed by the Board of Directors and serving at its pleasure. The President shall serve an an ex-officio member of the Board of Directors without a vote.

7. *Duties and Powers of the Board of Directors*

In addition to the duties and powers vested in the Board of Directors elsewhere in this Constitution, the Board of Directors may specifically employ such staff and establish such offices as may seem necessary; incorporate; undertake itself, or through its agents, to raise funds for the Council and to accept and expend monies for the Council; take initiative and act for the Council in all matters including matters of policy and public statement except where limited by this Constitution or by actions of the Council.

8. *Committees*

In addition to the Board of Directors, there shall be an Executive Committee of the Board of Directors, a Nominating Committee, a Committee on Membership, whose members shall not be members of the Board of Directors, and such other standing committees as may be established by the Board of Directors.

Except for the Executive Committee and the Nominating Committee, all standing committees and ad hoc committees shall be appointed by the Chairman with the advice and consent of the Board of Directors. Committee membership shall be limited to regular members of the Council.

The Executive Committee shall consist of the Chairman, Past Chairman, and Chairman-Elect and two other Board members elected annually by the Board of Directors. The President of the Council shall be an ex-officio member of the Executive Committee.

To the extent determined by the Board, the Executive Committee shall have the authority of the Board in the management of the affairs of the Council in the intervals between meetings of the Board. The actions of the Executive Committee shall be reported at the next meeting of the Board of Directors.

The Nominating Committee shall consist of five new members each year of whom three shall be elected by the members of the Council. Two shall be members of the Board of Directors. The Chairman of the Committee shall be the Past Chairman of the Board. The one other Board member shall be elected by the Board from its members-at-large who shall be in the last year of their terms.

At least sixty-one days before each Annual Meeting of the Council, the Nominating Committee shall propose to the members of the Council two nominees for each member-at-large position of the Board of Directors to be filled including residual terms of vacated positions, and two nominees for each member-at-large position of the Nominating Committee. These nominations shall be made only after suggestions accompanied by supporting vitae have been solicited from the membership-at-large.

The election will then be held by mail ballot and the nominees receiving the larger number of votes for the positions to be filled shall be declared elected. In case of a tie vote, the Nominating Committee shall break the tie.

9. *Meetings*

The Council shall hold an Annual Meeting at a time and place determined by the Board of Directors. The Council may meet at other times on call of the Board of Directors.

The Board of Directors shall be responsible for the agenda for meetings of the Council. Reports and proposals to be submitted for action by the Council shall be filed with the Board of Directors before they may be submitted for general discussion by the Council. No legitimate report or proposal may be blocked from presentation to the Council, but action on any proposal may not be taken until the Board of Directors has had an opportunity to make a recommendation.

In matters not provided for in this Constitution, parliamentary procedure shall be governed by Robert's Rules of Order, Revised.

10. *Limitation of Powers*

No act of the Council shall be held to control the policy or line of action of any member institution.

11. Dues

Membership dues shall be proposed by the Board of Directors and must be approved by the majority of the membership after due notice.

12. Amendments

Amendments to this Constitution may be proposed by the Board of Directors or by written petition of one-third of the members. However they originate, proposals for amendments shall be received by the Board of Directors and forwarded with recommendations to the members, in writing, at least ninety days before the meeting at which they are to be voted upon or before formal submission to the members for a mail ballot. To be adopted, proposed amendments must receive the approval of a two-thirds majority of the members voting at the announced meeting or on the designated mail ballot.

13. Bylaws

Bylaws may be established by the Board of Directors at any regular or special meeting, subject to ratification by a simple majority vote of the Council at the next Annual Meeting.

BYLAWS

1. In conformity with Article 6 of the Constitution, the President of the Council of Graduate Schools in the United States shall be paid an annual salary to be determined by the Board of Directors plus such perquisites as may be necessary for the proper conduct of the office and such travel as may be deemed essential. The President is authorized to employ such personnel as necessary for the proper conduct of the office, to establish bank accounts in the name of the Council of Graduate Schools in the United States, and to draw checks and invest monies against the Council's account or accounts, subject to an annual audit of the books of the Council by a Certified Public Accountant and approval by the Board of Directors.
2. Depositories for funds of the Council shall be designated by the Board of Directors.
3. In the event of the dissolution of the Council of Graduate Schools, all then existing assets of the Council shall be distributed in equal parts to the institutions which will at the time be members of the Council.
4. The fiscal year of the Council will correspond to the calendar year.
5. In the event of the death or disability of the President of the Council, the Chairman shall immediately call a meeting of the Board of Directors to select an Acting President, who shall assume the responsibilities of the President, as they are specified in Article 6 of the Constitution and in Bylaws 1 and 2, until the appointment of a new President.

6. Regular membership applicants responding to Section 3 of the Constitution are expected to furnish statements endorsed by the chief executive officer and the chief graduate officer of their institution. These statements should include information as to the following:
   a) The institution's accreditation for graduate work as determined by the appropriate regional accrediting association.
   b) The number of graduate degrees awarded in the three years immediately preceding the application for each applicable field or discipline in which graduate degrees are awarded.
   c) A general description of the criteria used in determining faculty participation in graduate programs, i.e., the level of training and the scholarly/creative productivity of the faculty members in the institution's graduate program.
   d) The degree of centrality of graduate education to the nature and purpose of the institution as evidenced by its budgetary commitment to graduate programs, the existence of special facilities or resources in specific support of graduate education, and, in the case of appointments, promotion and tenure, the degree of importance placed on faculty contributions to graduate and scholarly/creative work.
   e) The extent of the institution's acceptance of existing Council policy statements setting forth standards for the organization of graduate study.
7. Materials and information requested from the chief administrative officer of organizations applying for Sustaining Membership should include a statement of the aims and objectives of their organization; a statement of interest in graduate study; documentation of engagement in or commitment to research and development, creative expression, or the exploration of ideas; characterization of the educational level and achievements of the organization's professional staff; identification of affiliations with other associations or institutes relevant to graduate education; and a statement showing prior support of higher education.

   Applicant organizations must have been in existence for a period of time sufficient to establish the above commitments.

   Applicants agree to accept existing Council policy statements setting forth standards for graduate study and allied concerns.
8. A regional organization of graduate schools which becomes associated with the Council of Graduate Schools in the United States shall be known as a CGS affiliate. Eligibility for CGS affiliate status is limited to a) existing regional organizations of graduate schools or b) any such organizations subsequently established and having membership of at least 50 institutions. An eligible organization becomes a CGS affiliate upon approval by CGS's Board of Directors of a letter from a duly authorized officer at that organization stating its intent to become an affiliate. No fee is required to become a CGS affiliate. Formal participation of the regional associations in CGS shall be provided through the Board nomination and election process in such a way that a

representative of at least one institution in each of the affiliated regional associations, who otherwise meet CGS's constitutional requirements for Board membership, is a member of the Board. One such member may then be designated by each affiliate as its liaison member, who shall have, as an extra responsibility beyond that of regular Board membership, to communicate information and views between the Board and the officers of the affiliate. (Alternatively, a regional organization which is an affiliate of the Council may designate as its liaison representative an individual who is not a Board member.) Such communication does not preclude direct communication between CGS and officers of the affiliates. A liaison member may or may not be an officer of the affiliate and is free to act on any Board decision independent of any position described by his or her affiliate. In determining any joint position held by CGS and its affiliates, the governing bodies of each must have adopted such a position through their own procedures. When agreement has been reached, CGS shall be able to represent the position as one held in common by CGS and its affiliates.
Section 10 of the Consitution of CGS shall apply to any such determination.

PROCEDURAL POLICIES

1. Annual meetings of the Council shall be held during or near the first week of December.
2. If a member resigns, it must reapply for admission in the normal way if it wishes to resume membership.
3. Institutions accepted to membership in any given year are required to pay prorated dues on a quarterly basis for that fiscal year.

Alphabetical Listing of Member Institutions

Abilene Christian University
Adelphi University
Air Force Institute of Technology
Alabama A&M University
Alfred University
*American University, The
Andrews University
Angelo State University
Appalachian State University
Arizona State University
Arkansas State University
Atlanta University
Auburn University
Austin Peay State University
Ball State University
Baylor College of Medicine
Baylor University
Bentley College
*Boston College
Boston University
Bowling Green State University
Bradley University
*Brandeis University
Bridgewater State College
Brigham Young University
Brooklyn College —CUNY
*Brown University
*Bryn Mawr College
*California Institute of Technology
California State College, Bakersfield
California State College, Stanislaus
California State College (Pa.)
California State Polytechnic University, Pomona
California State University, Fresno
California State University, Fullerton
California State University, Hayward
California State University, Long Beach
California State University, Los Angeles
California State University, Northridge
California State University, Sacramento
California University of Pennsylvania
*Case Western Reserve University
*Catholic University of America
Central Michigan University
Central State University
Central Missouri State University
Central Washington University
Chicago State University
City College of the City University of New York
City University of New York
*Claremont Graduate School
*Clark University
Clarkson College of Technology
Clemson University
Cleveland State University
College of Notre Dame
College of Saint Rose
College of William and Mary
Colorado School of Mines
Colorado State University
*Columbia University
*Cornell University
Creighton University
Dartmouth College
Drake University
Drexel University
*Duke University
Duquesne University
East Carolina University
East Tennessee State University
East Texas State University
Eastern Illinois University
Eastern Kentucky University

Eastern Michigan University
Eastern Washington University
*Emory University
Emporia State University
Fairleigh Dickinson University
Fielding Institute
Fitchburg State College
Florida A&M University
Florida Atlantic University
*Florida State University
*Fordham University
Fort Hays State University
Framingham State College
Gannon University
Gallaudet College
George Mason University
*George Washington University
*Georgetown University
*Georgia Institute of Technology
Georgia Southern College
Georgia State University
Governors State University
Hahnemann University
Hampton Institute
Hardin-Simmons University
*Harvard University
Hebrew Union College Jewish
  Institute of Religion
Hofstra University
Holy Names College
Howard University
Idaho State University
*Illinois Institute of Technology
Illinois State University
Indiana State University
Indiana University
*Indiana University of Pennsylvania
Iona College
*Iowa State University
Jackson State University
James Madison University
John Carroll University
*Johns Hopkins University, The
*Kansas State University
Kent State University
Lamar University
*Lehigh University
Loma Linda University
*Louisiana State University
Louisiana State University Medical
  Center, School of Graduate
  Studies
Loyola Marymount University
*Loyola University of Chicago
Mankato State University
Marquette University
Marshall University
*Massachusetts Institute of
  Technology
Medical College of Georgia
Medical College of Pennsylvania
Medical College of Wisconsin, The
Medical University of South
  Carolina
Memphis State University
Miami University
*Michigan State University
Michigan Technological University
Middle Tennessee State University
Mississippi State University
Montana State University
Montclair State College
Morehead State University
Morgan State University
Murray State University
National University
Naval Postgraduate School
New Jersey Institute of Technology
New Mexico Institute of Mining
  and Technology
New Mexico State University
*New School for Social Research
New York Institute of Technology
New York Medical College
*New York University
North Carolina Agricultural and
  Technical State University
North Carolina Central University

*North Carolina State University at
Raleigh
North Dakota State University
North Texas State University
Northeast Missouri State University
Northeastern Illinois University
Northeastern University
Northern Arizona University
Northern Illinois University
Northwestern State University of
Louisiana
*Northwestern University
Nova University
Oakland University
*Ohio State University, The
Ohio University
*Oklahoma State University
Old Dominion University
*Oregon State University
*Pennsylvania State University, The
*Pepperdine University
Pittsburg State University
Polytechnic Institute of New York
*Princeton University
*Purdue University
Queens College of the City
University of New York
*Rensselaer Polytechnic Institute
Rhode Island College
*Rice University
*Rockefeller University, The
Roosevelt University
*Rutgers—The State University
St. Bonaventure University
*St. John's University
*St. Louis University
St. Mary's University
Samford University
San Diego State University
San Francisco State University
Sangamon State University
San Jose State University
Seattle University
Shippensburg University
Sonoma State University
South Dakota School of Mines
and Technology
South Dakota State University
Southeast Missouri State University
Southeastern Louisiana University
Southern Illinois University at
Carbondale
Southern Illinois University
at Edwardsville
Southern Methodist University
Southern University
Southwest Missouri State
University
Southwest Texas State University
*Stanford University
State University of New York at
Albany
State University of New York at
Binghamton
*State University of New York at
Buffalo
State University of New York—
Downstate Medical Center
State University of New York at
Stony Brook
State University of New York—
Upstate Medical Center
Stephen F. Austin State University
Stetson University
Stevens Institute of Technology
*Syracuse University
*Temple University
Tennessee State University
Tennessee Technological University
*Texas A&M University
Texas Christian University
Texas Southern University
Texas Tech University
Texas Woman's University, The
Thomas Jefferson University
Towson State University
Trinity University
Tufts University

*Tulane University
United States International University
University of Akron
*University of Alabama
University of Alabama in Birmingham
University of Alabama in Huntsville
University of Alaska
*University of Arizona
University of Arkansas
University of Arkansas at Little Rock
University of Baltimore
University of Bridgeport
*University of California, Berkeley
University of California, Davis
University of California, Irvine
University of California, Los Angeles
University of California, Riverside
University of California, San Diego
University of California, San Francisco
University of California, Santa Barbara
University of Central Florida
*University of Chicago
*University of Cincinnati
*University of Colorado
University of Connecticut
University of Dayton
*University of Delaware
*University of Denver
University of the District of Columbia
University of Evansville
*University of Florida
University of Georgia
University of Hartford
University of Hawaii at Manoa
University of Health Sciences, The Chicago Medical School
University of Houston
University of Houston at Clear Lake
University of Idaho
University of Illinois at Chicago Circle
University of Illinois at Chicago Health Sciences Center
*University of Illinois at Urbana-Champaign
*University of Iowa
*University of Kansas
*University of Kentucky
University of Louisville
University of Lowell
University of Maine at Orono
*University of Maryland
University of Maryland at Baltimore
University of Maryland Baltimore County
University of Maryland College Park
University of Massachusetts at Amherst
University of Medicine and Dentistry of New Jersey—Graduate School of Biomedical Sciences
University of Miami
*University of Michigan
University of Minnesota
University of Mississippi
University of Missouri—Columbia
University of Missouri—Kansas City
University of Missouri—Rolla
University of Missouri—St. Louis
University of Montana
*University of Nebraska
University of Nevada—Las Vegas
University of Nevada—Reno
University of New Hampshire
University of New Haven

University of New Mexico
University of New Orleans
*University of North Carolina at Chapel Hill
University of North Carolina at Charlotte
University of North Carolina at Greensboro
*University of North Dakota
University of Northern Colorado
University of Northern Iowa
*University of Notre Dame
*University of Oklahoma
*University of Oregon
University of the Pacific
*University of Pennsylvania
*University of Pittsburgh
University of Puerto Rico—Mayaguez
University of Puerto Rico—Rio Piedras
University of Rhode Island
*University of Rochester
University of San Francisco
University of Santa Clara
University of Scranton
University of South Alabama
University of South Carolina
University of South Dakota
University of South Florida
*University of Southern California
University of Southern Maine
*University of Southern Mississippi
University of Tennessee at Chattanooga
University of Tennessee at Knoxville
University of Tennessee at Martin
University of Tennessee Center for the Health Sciences
University of Texas at Arlington
*University of Texas at Austin
University of Texas at Dallas
University of Texas at El Paso
University of Texas at San Antonio
University of Texas at Tyler
University of Texas Graduate School of Biomedical Sciences at Galveston
University of Texas Health Science Center at Houston Graduate School of Biomedical Sciences
University of Texas Graduate School of Biomedical Sciences at San Antonio
University of Toledo
University of Tulsa
*University of Utah
University of Vermont
*University of Virginia
*University of Washington
*University of Wisconsin, Madison
University of Wisconsin, Milwaukee
University of Wisconsin, Oshkosh
University of Wisconsin, Stout
*University of Wyoming
Utah State University
*Vanderbilt University
Villanova University
Virginia Commonwealth University
*Virginia Polytechnic Institute and State University
Wake Forest University
*Washington State University
Washington University
Wayne State College
*Wayne State University
Wesleyan University
West Chester University
West Texas State University
*West Virginia University
Western Carolina University
Western Illinois University
Western Kentucky University
Western Michigan University
Western State College of Colorado
Western Washington University

Westfield State College
Wichita State University
Worcester Polytechnic Institute
Worcester State College
Wright State University
Xavier University
*Yale University
Yeshiva University
Youngstown State University

*Founding Institutions